PRESERVATION ASSESSMENT OF MOUNT CALVARY, MOUNT OLIVE, FISHER'S AND POTTER'S CEMETERIES, CITY OF PORTSMOUTH, VIRGINIA

Chicora Research Contribution 533

PRESERVATION ASSESSMENT OF MOUNT CALVARY, MOUNT OLIVE, FISHER'S, AND POTTER'S FIELD CEMETERIES, CITY OF PORTSMOUTH, VIRGINIA

Prepared By:
Michael Trinkley, Ph.D.
and
Debi Hacker

Prepared For:
Ms. Mae Breckenridge-Haywood
President
African American Historical Society of Portsmouth, Inc.
P.O. Box 2468
Portsmouth, Virginia 23702

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Chicora Foundation, Inc.
PO Box 8664
Columbia, SC 29202
803-787-6910
www.chicora.org

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MANAGEMENT SUMMARY

This study was funded by a grant from the Portsmouth Museums and Fine Arts Commission to the African American Historical Society of Portsmouth, Inc. The work was conducted by Chicora Foundation in mid- to late October 2010 and involved two-days of on-site inspection.

The work examines a complex of four African American cemeteries in south central Portsmouth, Virginia. The cemeteries include Mount Olive with 6.93 acres, known to have been organized by seven individuals representing the Mount Olive Club of Portsmouth in 1879; Mount Calvary, apparently assembled by Samuel Fisher beginning about 1894 and today encompassing 3.05 acres; Fisher's Cemetery, also created by Samuel Fisher and consisting of 0.58 acres; and a potter's field that was acquired by Norfolk County in 1882, eventually passing to the City of Portsmouth. The properties are inventoried by the Virginia Department of Historic Resources as the Mount Calvary Cemetery Complex, 124-5125 and has been determined eligible for listing in the National Register of Historic Places.

There is no comprehensive historical study of these three properties. This study was not tasked with such an effort – although a detailed historical account is badly needed – and our report simply compiles readily available information. Much of this involves a title search conducted by the City of Portsmouth, although also included is information gathered by Ms. Mae Breckenridge-Haywood and Ms. Christina Carlton, as well as information collected by Chicora during our brief visit.

The cemeteries have been essentially abandoned since at least the early 1960s, although deterioration likely began several decades earlier. News accounts document that various organizations and groups have attempted to clean and restore the cemeteries on multiple occasions, each time meeting with various levels of success.

Recently efforts to preserve the cemeteries have received considerable impetus from local volunteer efforts and the City of Portsmouth has begun taking steps to consolidate the essentially abandoned properties under city ownership. The overall condition of the cemeteries has clearly improved dramatically when compared to photographs and accounts from the 1960s through the 1990s.

Most of the problems seen at these cemeteries are the result of deferred maintenance – doing too little over too long a period of time. In the case of Mount Olive, the original club members died off and apparently made no provision for sustaining the organization. At Mount Calvary, it seems likely that the cemetery had sold the bulk of its available lots and the Fishers sold the property to another individual who continued to sell plots but provide no maintenance. Eventually that individual "donated" the property to the City of Portsmouth. Exacerbating the decline was the out migration of African American families, as well as changing cultural patterns associated with cemetery maintenance.

While the cemeteries have largely been reclaimed from the forest and illegal dumping that resulted when they were no longer being maintained, there remain significant problems affecting the historic fabric.

There are a large number of trees that have grown up in the cemetery over the past 50 years that require removal, both for the benefit of monument preservation, the landscape, and also to encourage drying of soils. We recommend the

removal of between 30 and 50 trees under 10-inches diameter breast height (dbh) or that are damaged.

Drainage in the cemetery is a significant issue. There is no doubt that the property was always low and poorly drained. The construction of I-264 to the north, however, may have altered the natural drainage of the topography and may contribute to the backing of water up in the cemetery. This is resulting in the flooding of graves and creating large areas of standing water. The drainage is a significant public health issue that requires immediate resolution. A drainage study of the cemetery conditions, recommended by the city in 2006, has yet to be accomplished. This is an essential step toward correcting this problem.

The cemetery topography exhibits extreme undulations resulting from sunken graves, improper disposal of spoil, and tree displacement. This distracts from the character of the cemetery, creates a significant public hazard, and makes mowing extremely difficult (and costly). The resolution of this problem cannot be accomplished until all of the identifiable graves in the cemetery are mapped. This mapping is a critical recommendation of this study.

Once graves are mapped, it will be possible to begin the process of leveling the topography – backfilling graves, filling open vaults, and removing spoil piles. This, in turn, will require reseeding or sodding of different cemetery areas. We recommend that some low maintenance grasses be investigated. The combination of leveling and replanting has the potential to reduce long-term cemetery maintenance issues.

There is significant damage to a broad range of the stones in the cemetery. Many have been vandalized over the past 50 years. It is probable that different "cleaning" efforts caused damage. Many other stones have suffered damage from trees. The water-logged condition of the soils has undermined foundations. Once the drainage has been corrected, the identifiable graves mapped, and the topography leveled, it is essential that monument conservation be undertaken. Consequently, we are also recommending a stone-by-stone assessment of the cemetery in order that the stones be appropriately assessed.

The city must make administrative changes in the way the cemetery is operated and the ordinances that govern the property. The cemetery requires caregivers to give careful attention to the Secretary of the Interior's Standards for Preservation.

Most fundamentally, it is critical that the cemetery have a solid, permanent funding base. The requirements of cemetery maintenance do not change based on political vagaries or economic forecasts. In fact, the funding requirements only increase with age.

For years the city sought to skirt the issue of maintenance, closing its eyes to its public and ethical responsibilities. In light of the city's efforts to consolidate the property, we hope that this is changing.

We recommend the formation of a friends group to help identify descendants, develop public interpretative programs, provide assistance in cemetery care, and assist in fund raising. Most particularly, this friends group must be a constituency – speaking for those who have no voice and demanding that the city fulfill its obligation to the care and preservation of Mount Calvary, Mount Olive, Fisher's, and potter's field.

This report evaluates all of the identified needs, classifying them into three broad categories:

- Those issues that are so critical – typically reflecting broad administrative issues, health and safety issues, and issues that if delayed will result in significantly greater costs – that require **immediate** attention. These actions should be accomplished in 2011.

- Those issues that, while significant and reflecting on-going deterioration and concerns, can be spread over the **next 2 to 3 years** (i.e., 2012-2014). This allows some budgeting flexibility, but this flexibility should not be misconstrued as a

reason to ignore the seriousness of the issues.

- Finally, those issues that represent on-going maintenance and preservation issues. These costs can be spread over the following **three years** (i.e., 2015-2017). Like the Second Priority issues, this budgetary flexibility should not be interpreted as allowing these issues to slide since further delay will only increase the cost of necessary actions.

We acknowledge that these goals will be costly. Nevertheless, the city has deferred responsibility and care for generations – it is now time to ensure that these African American cemeteries are appropriately preserved for future generations.

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INTRODUCTION

The Project

In December 2009 Ms. Mae Breckenridge-Haywood contacted Chicora Foundation to request information on the assessment of the African American cemetery complex in Portsmouth, Virginia known as Mount Olive, Mount Calvary, Fisher's, and potter's field. We provided a proposal for an assessment and by May 2010 learned that only a portion of that assessment was funded by the Portsmouth Museums and Fine Arts Commission through the African American Historical Society of Portsmouth, Inc. Unfortunately, no funding was forthcoming from the City of Portsmouth.

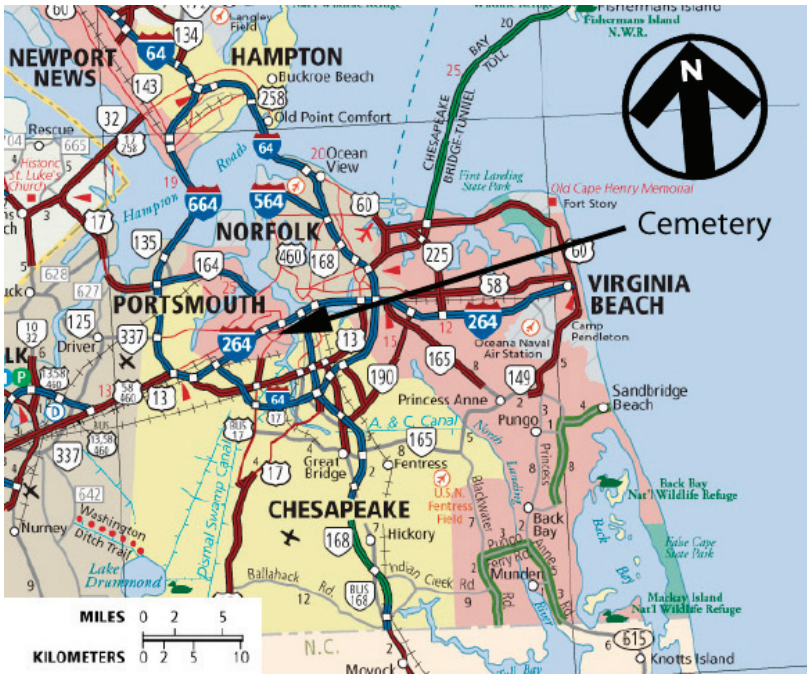


Figure 1. Vicinity of the cemetery complex in the Hampton Roads vicinity.

The assessment was conducted on October 5 and 6, 2010 by the authors, Michael Trinkley and Debi Hacker. The work involved two-days in Portsmouth, including time in the cemeteries, meeting with various city officials and stakeholders, and reviewing readily available historic research (primarily at the Ester Murdaugh Wilson Memorial Room at the Portsmouth Public Library).

Portsmouth is an independent city located in the Hampton Roads metropolitan area of Virginia. While its history can be traced back to a plantation community as early as 1620, Portsmouth wasn't founded as a town until 1752 when Col. William Crawford, a wealthy merchant and ship owner, dedicated the four corners of High and Court streets for a church, a market, a courthouse, and a jail.

The Virginia Beach-Norfolk-Newport News, VA-NC Metropolitan Statistical Area, generally called the Hampton Roads metropolitan area, consists of 10 independent cities and seven counties in Virginia and extending into North Carolina. Each city is independent and has the powers and responsibilities of a county, including maintaining courts, schools, and a sheriff, although some do share these responsibilities with an adjoining county.

The cemetery complex is situated in south central Portsmouth in what is known as the Prentis Park neighborhood. This is an urban area of mostly single family housing with mixed renter and owner occupation. It is generally a low income area, heavily dominated by African Americans. The neighborhood runs from just north of I-264 south to Jefferson Street and from Elm Avenue on the east, westerly to Phillips Avenue. In 1986 the

Portsmouth Redevelopment and Housing Authority developed the *Prentis Park Conservation Plan* that outlines how the Authority would assist property owners to acquire low-interest loans for rehabilitation efforts. That plan remains in effect today (Brian C. Donahue, personal communication 2010).

While there has been extensive public interest in the cemeteries, it hasn't been until recently that the complex has received professional attention. This attention has been associated with the environmental reviews of the Route 58, Martin Luther King Freeway Extension Project (VDOT Project Number 0058-965-107, P101). Briefly, this project would extend the Martin Luther King Freeway from I-264 northward to London Boulevard (http://www.roadstothefuture.com/Mid_Tunn_Port_Norf_MLK.html).

Because of the potential for the I-264 interchange to affect the cemetery property, an archaeological study was conducted (Barry et al. 2007). As a result of that study the cemetery complex was assigned the archaeological/architectural resource number 44PM0062/124-5125. As a result of that study, the potter's field has been determined eligible for inclusion on the National Register under Criteria A (association with events that had made a significant contribution), B (association with the lives of significant persons), and D (information important to prehistory or history) (letter from Mr. Marc Holma, Architectural Historian, Office of Review and Compliance, Department of Historic Resources to Ms. Margaret Stephenson, Virginia Department of Transportation, dated January 7, 2008).

While it seems likely that the remaining properties would be found eligible, no preliminary information form (PIF) has been prepared, no assessment has been conducted, and the Virginia Department of Historic Resources has not issued an opinion regarding the eligibility of the complex as a whole. We recommend that a determination of eligibility for the properties be sought immediately.

During this assessment we had the opportunity to speak to a variety of individuals. At the City of Portsmouth we met with Mr. J. Brannon Godfrey, Jr., Deputy City Manager and Ms. Meg Pittenger, Parks Manager. We have communicated with G. Timothy Oksman, Esq., Portsmouth City Attorney. Additional staff with the Portsmouth Public Library, the Portsmouth Redevelopment and Housing Authority, and the Portsmouth Department of Public Works have provided gracious and critical assistance. Ms. Mae Breckenridge-Haywood with the African American Historical Society of Portsmouth was especially free with her historical research and files, as was local volunteer Ms. Christina Carlton. We were also very fortunate to have the input of several individuals who have family buried in the cemetery complex or who have a special interest in the cemetery, including Ms. Nadia Kathryn Orton, Ms. Brenda Orton, Mr. Winston Pearson, Mr. Clifton Vaughan, Ms. Mae Breckenridge-

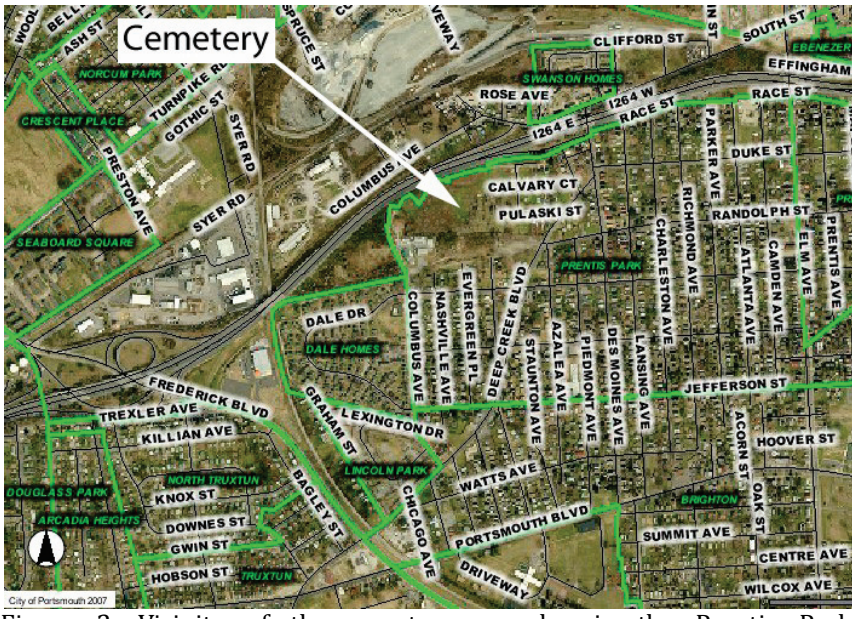


Figure 2. Vicinity of the cemetery complex in the Prentis Park neighborhood.

Haywood, Ms. Christina Carlton, Ms. Margaret Windley, and Mr. Jim Windley. The meeting was also attended by Ms. Lia Russell, Staff Writer with the Virginian-Pilot. This paper has followed the efforts to preserve these cemeteries since at least the early 1980s.

Preservation Fundamentals

Preservation is not an especially difficult concept to grasp, although the key principles are not always clearly articulated. The fundamental concepts are well presented in the Secretary of the Interior's Standards for Preservation (see Table 1).

Table 1.
Secretary of the Interior's Standards for Preservation

1. A property will be used as it was historically, or be given a new use that maximizes the retention of distinctive materials, features, spaces, and spatial relationships. Where a treatment and use have not been identified, a property will be protected and, if necessary, stabilized until additional work may be undertaken.
2. The historic character of a property will be retained and preserved. The replacement of intact or repairable historic materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place, and use. Work needed to stabilize, consolidate, and conserve existing historic materials and features will be physically and visually compatible, identifiable upon close inspection, and properly documented for future research.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. The existing condition of historic features will be evaluated to determine the appropriate level of intervention needed. Where the severity of deterioration requires repair or limited replacement of a distinctive feature, the new material will match the old in composition, design, color, and texture.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

This document reminds us – at least at a general level – of what caregivers need to be thinking about as they begin a cemetery preservation plan. Those responsible for the care of the Mount Calvary, Mount Olive, Fisher's, and potter's field cemeteries should be intimately familiar with the eight critical issues it outlines.

For example, all other factors being equal, a cemetery should be used as a cemetery – not to walk dogs, not as a playground, not to store equipment, and not as a park. And until the caregivers are able to do what needs to be done, it is their responsibility to make certain that the site is preserved – it must not be allowed to suffer damage under their watch.

Caregivers must work diligently to understand – and retain – the historic character of the cemetery. In other words, they must look at the cemetery with a new vision and ask themselves, "what gives this cemetery its unique, historical character?" Perhaps it is the landscape, the old and stately trees, the large boxwoods, or the magnificent arborvitae. Perhaps it is the very large proportion of complex monuments, or the exceptional hand-made markers. It may simply be that it is a unique representation of a cemetery type rarely seen in a rapidly developing urban setting. Whatever it is, those undertaking its care and preservation become the guardians responsible for making certain those elements are protected and enhanced (whether they are particularly appealing to the caregivers or not).

Whatever conservation efforts are necessary must be done to the highest professional standards; these conservation efforts must be physically and visually compatible with the original materials; these conservation efforts must not seek to mislead the public into thinking that repairs are original work; and the conservation efforts must be documented for future generations. If the caregivers aren't conservators, it is their responsibility as the stewards of the property to retain a conservator

appropriately trained and subscribing to the Code of Ethics and Standards of Practice of the American Institute for Conservation (AIC).

The Secretary of the Interior reminds those responsible for the resources that each and every cemetery has evolved and represents different styles and forms. It is the responsibility of care-givers to care for all of these modifications and not seek to create a "Disney-land" version of the cemetery, tearing out features that don't fit into their concept of what the cemetery "ought" to look like.

Likewise, caregivers are reminded that there will be designs, monuments, and other features that characterize the cemetery – and the caregivers are responsible for identifying these items and ensuring their preservation. Caregivers must be circumspect in any modifications, ensuring that they are not destroying what they seek to protect.

Before acting, those responsible for preservation are required as good and careful stewards to explore and evaluate the property, determining exactly what level of intervention – what level of conservation – what level of tree pruning – is actually necessary. And where it is necessary to introduce new materials – perhaps a pathway – into the cemetery, they must do their best to make certain these new elements are not only absolutely necessary, but also match the old elements in composition, design, color, and texture. In other words, if the cemetery has brick pathways, they would be failing as good stewards if they allowed concrete pathways – especially if the only justification was because concrete was less expensive.

Where conservation treatments are necessary, the Secretary of the Interior tells stewards that they must be the gentlest possible. However phrased – less is more – think smart, not strong – caregivers have an obligation to make certain that no harm comes to the resource while under their care. And again, one of the easiest ways to comply is to make certain that caregivers retain a conservator subscribing to the ethics and standards of the American Institute for Conservation.

Finally, the caregivers must also recognize that the cemetery is not just a collection of monuments and the associated landscape – the cemetery is also an archaeological resource. They must be constantly thinking about how their efforts – whether to repair a monument, put in a parking lot, or resurface a path – will affect the archaeological resources – archaeological resources that are the remains of people buried at the cemetery by their loved ones.

These are especially critical issues for the Mount Calvary, Mount Olive, Fisher's, and potter's field cemeteries. These cemeteries have been fighting gradual deterioration since at least the early 1960s. Various clean-up efforts have made a substantial difference in the overall appearance of the cemeteries, but the deferred maintenance has created a substantial problem that will not be easily overcome. Original fabric has deteriorated. Even the landscape has been compromised by development activities on surrounding parcels and a lack of careful attention to critical management issues.

Our first recommendation, therefore, is that those assuming care for the cemetery, especially the City of Portsmouth (including City Council, the City Manager, and those in the Portsmouth Department of Parks, Recreation & Leisure Services), become thoroughly familiar with the Secretary of the Interior's Standards for Preservation and reaffirm their responsibility as stewards of this historical resource to ensure that future preservation efforts are consistent with sound preservation principles and practices. These standards must become "talking-points" for all future discussions and decisions made concerning the cemetery.

Administrative and Legal Issues

This section is not intended to offer legal advice – only to provide recommendations from the perspective of proactive cemetery preservation.

After years of a laissez-faire or "hands-off" approach, the City of Portsmouth is finally realizing that the African American cemeteries require direct intervention. The city has

acknowledged ownership of the potter's field, although a recent study reveals that part of this burial ground is on the property of James E. Bazemore, Sr. (Barry et al. 2007). The city is in the process of acquiring ownership of Mount Olive cemetery. It is also opening negotiations for the control of Mount Calvary and Fisher's. Nevertheless, the city's tax assessor already shows the city as the owner of record for both Mount Calvary and Mount Olive.

We recommend that the City take whatever steps are necessary to acquire ownership of the entire cemetery complex, including Mount Calvary, Mount Olive, Fisher's, and all portions of the potter's field.

These are appropriate actions and they should be pursued diligently. While we understand they cannot be rushed, we do encourage that they be given a very high priority with the intention to acquire ownership by the end of 2010.

First, so much historic fabric has already been lost or compromised, it is crucial that steps be taken immediately to ensure the long-term preservation of these properties. Delay will, without question, result in additional losses.

Second, delay will also further endanger the public since these cemeteries pose significant hazards to the public, including the threat of mosquito-borne diseases, such as dengue fever, eastern equine encephalitis, and West Nile virus (http://www.cdc.gov/ncidod/diseases/list_mosquitoborne.htm). In addition, there are numerous open graves and dangerously unstable monuments.

Third, after decades of delay and tactics clearly intended to dismiss or ignore the needs of Portsmouth's African American community, the consolidation, repair, and protection of these historic burial grounds is the appropriate course of action for the city.

Code Changes

We recommend that the Portsmouth City Council change Chapter 9, Article 2, City Cemeteries of the City Code to reflect the ownership of Potter's Field, and the acquisition of Mount Olive, Mount Calvary, and Fisher's. Specifically, changes should be enacted in:

- 9-26(a) amended to read: The burial ground at Glasgow Street and Fort Lane shall be known as "Cedar Grove Cemetery." The burial ground at London Boulevard and Peninsula Avenue shall be known as "Oak Grove Cemetery." The burial grounds adjoining City Park and Clifford Street shall be known as "Olive Branch Cemetery," and "Olive Branch Annex Cemetery. The burial ground at the end of Columbus Avenue shall be known as the "City Potter's Field." The burial grounds off Pulaski Street shall be known as the "Mount Calvary, Mount Olive, and Fisher's Cemetery complex."

- 9-26(b) amended to read: Cedar Grove Cemetery, Oak Grove Cemetery, ~~and~~ Olive Branch Cemetery, the City Potter's Field, and the Mount Calvary, Mount Olive, and Fisher's Cemetery complex are hereby designated as city cemeteries. For the purposes of this chapter, the term "city cemeteries" shall mean only those cemeteries so designated in this section.

- 9-26(c) added: The City Potter's Field and the Mount Calvary, Mount Olive, and Fisher's Cemetery Complex are closed to additional burials and are historic sites commemorating the many contributions of Portsmouth's African American community. Features in these cemeteries that may be disallowed by other provisions of this section, such as enclosures or seating, do not apply to these properties if the features are present at the time this ordinance is enacted.

- 9-29(a) amended to read: The city shall, in perpetuity, maintain in good order, free from weeds and undergrowth, the city cemetery grounds of Cedar Grove Cemetery, Oak Grove Cemetery, ~~and~~ Olive Branch Cemetery, the City Potter's Field,

and the Mount Calvary, Mount Olive, and Fisher's Cemetery Complex. The city shall also maintain the monuments and stones of said city cemeteries in an upright position so long as the same continue intact.

- 9-58 added: Hours Open. The City Potter's Field and the Mount Calvary, Mount Olive, and Fisher's Cemetery Complex shall be open for visitation between sunup and sundown. Anyone in the cemeteries other than during this period shall be deemed trespassing and will subject to arrest and prosecution.

- 9-59 added: Litter. It shall be unlawful for any person to litter, deposit trash or debris, or to dump any material in the City Potter's Field and the Mount Calvary, Mount Olive, and Fisher's Cemetery Complex.

- 9-57, Duty of person in charge as to violations of certain sections shall be renumbered 9-60 and amended to read: Whenever it shall come to the knowledge of the person in charge of any city cemetery, or any of his assistants, that any person is about to violate any of the provisions of sections 9-41 through ~~9-56~~ 9-59, such person shall be by him warned against such violation and, if necessary, shall be notified of such threatened violation. In every case where any such violation has actually occurred, it shall be the duty of the keeper and his assistants to report the same at once.

These recommended changes will open Portsmouth's African American cemeteries to receive city perpetual care funds. Some may claim this is inappropriate since those buried in these cemeteries did not contribute to these funds initially. We dismiss this argument as not only spurious, but also disingenuous.

Portsmouth's African American citizens were legally excluded because of their skin color from using the cemeteries where perpetual care was offered. Thus, to claim that they made no contribution into the perpetual care fund is easily dismissed.

In addition, the City of Portsmouth sought to maintain segregation by hiding their whites-only cemeteries under private ownership. This action alone would seem to be so egregious that extending the umbrella of perpetual care funding to the city's African American burial grounds seems to be an act of the most minimal restitution.

The use of these funds will be discussed in a subsequent section of this study.

The Cemeteries, Their Setting, and Context

The African American cemetery complex is located in Block Group 4 of Census Tract 2118 in Portsmouth. Fisher's Cemetery is identified as parcel 123-460 (0.58 acre); Mount Calvary Cemetery is identified as parcel 209-030 (3.05 acre), and Mount Olive Cemetery is identified as parcel 209-020 (6.93 acre). The City Potter's Field is partially subsumed with Mount Olive Cemetery and partially on the property of James E and Shirley D. Bazemore, Sr. (parcel 208-030).

The 10.7 acre cemetery complex is roughly a rectangle measuring about 1,500 by 500 feet. The western boundary is Columbus Avenue; the northern boundary includes I-264 and a series of lots; the eastern boundary is Pulaski Street and a private lot; and the southern boundary, marked by a ditch, borders on privately held parcels.

Zoning around the cemetery is primarily urban residential, with occasional tracts identified as general residential or light industry. The urban residential zoning accommodates a wide range of development, including mixed-use and (neighborhood serving) commercial development.

Far more out of character and inappropriate are the lots immediately abutting the cemeteries to the south that are zoned for light industry. This zoning is intended for light manufacturing, fabrication, processing, and storage. While subject to standards that hopefully minimize detrimental impacts, such activities should not be allowed to border a cemetery and

we recommend that these tracts be rezoned consistent with residential functions.

Topography in the cemeteries appears to be essentially level, although drainage suggests there is a slight dip northward. Historic maps, such as the 1902 Norfolk topographic sheet and the 1921 Newport News topographic sheet, reveal a major drainage originating in the immediate area of the cemeteries and extending northward. Remnants of this are still seen today in the arms of Scott Creek.

With the construction of I-264 in the cemetery area in 1967 (extending from US 17 Frederick Blvd. eastward to US 460 ALT (currently VA 141), this natural drainage was interrupted. It is likely that we can attribute many of the current drainage issues to this construction.

Elevations in the cemetery are estimated to be less than 10 feet above mean sea level (AMSL).

The cemetery consists of Tomotley-Urban land complex soils with slopes under 2%. These soils exhibit 0.7 foot of dark grayish brown (10YR 4/2) fine sandy loam over a light gray (10YR 7/1) fine sandy loam to 0.8 foot. To about 3.3 feet there is light brownish gray (2.5Y 6/2) sandy clay loam. This grades into a light gray fine sandy loam, found to depths of about 5 feet. The soils are considered poorly drained and exhibit a seasonal high water table within a foot of surface (Hammer 2007).

A small portion of the north edge of Mount Olive Cemetery is situated in the 500 year flood zone, as is the western third of Fisher's Cemetery, and perhaps a small portion of the northwestern edge of Mount Calvary Cemetery. Additional flooding will be found on the lots to the north, as well as on the north side of I-264.

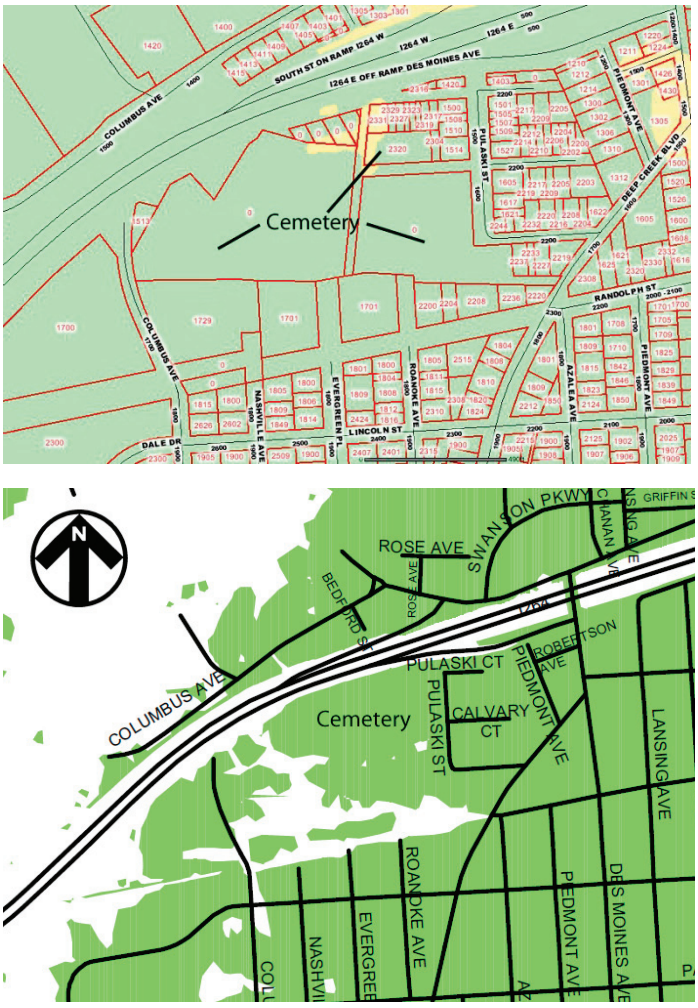


Figure 3. Potential severe flooding of the cemetery complex. The top map shows the 500 year flood in beige against the green background. The bottom map shows flooding resulting from a Category 3 hurricane in green.

Of potentially greater consequence is the flooding induced by a hurricane storm surge. A Category 2 hurricane would result in flooding virtually identical to the anticipated 500 year flood. A Category 3 hurricane, however, would result in only small areas of the cemetery complex being untouched – most of the cemetery would be inundated. This would likely cause extensive damage to both graves and the vegetation.

The cemetery is situated in a relatively poor area of the city. The median household income in the 2000 census was $20,881, compared to the city-wide average of $45,292.

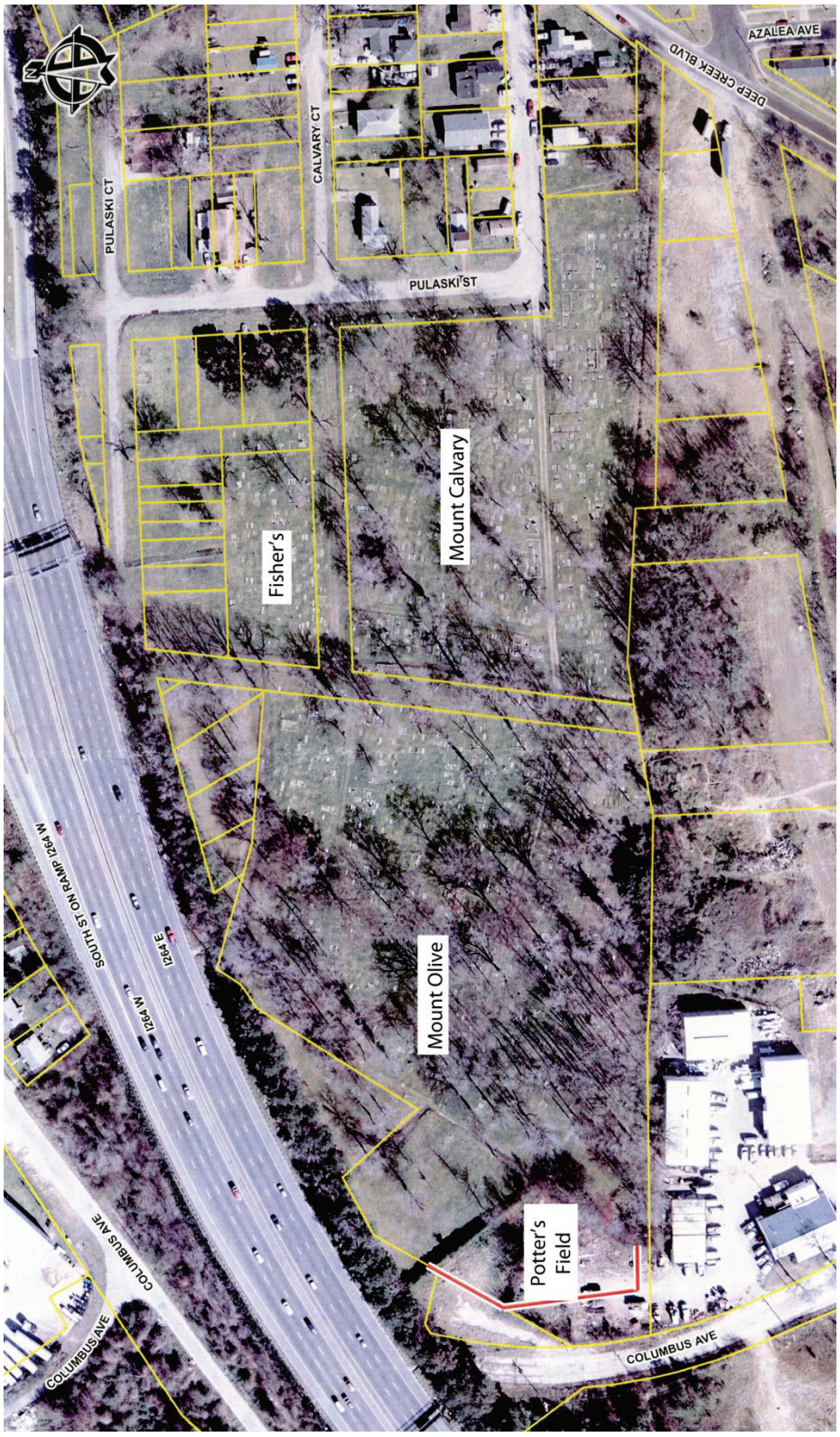


Figure 4. Aerial view of the Mount Calvary, Mount Olive, Fisher's, and City Potter's Cemetery.

City-wide about 17.9% of the residents are below the poverty level, while in the cemetery area 37.2% of the residents are below the poverty level. While the unemployment rate for Virginia is 7.0%, in Portsmouth the rate is 9.2% (August 2010, not seasonally adjusted).

City-wide the home ownership rate is about 59%. In the study area it is 46.5%. The median value of these residences is $57,100, considerably lower than the city average of $81,300. Over 53% of the housing units are renter-occupied (compared to a city average of 41.4%). Over a fifth of the neighborhood residents have resided at the same location for 30 years and over half have been at the same address for at least five years, suggesting a fairly stable population. The median age for the area is 33, while city-wide it is slightly older, 35 years. Nevertheless, 33.2% of the population over 5 years old reports a disability, compared to a city-wide average of only 22%.

The community around the cemetery is predominately African American (98.2%), although Portsmouth is 53% African American. Over 45% of those in the census tract have not graduated from high school and less than 3% have graduated from college. In comparison over 75% of Portsmouth residents have graduated from high school and nearly 14% have a college degree.

Some of this data may be dated since the neighborhood has seen significant rehabilitation over the past decade. For example, in 2006 Habitat for Humanity built 10 homes on in-fill urban lots in the Prentis Park neighborhood in only five days. This represented the first new construction in the area in over 30 years and since that work more than 20 additional homes have followed.

Portsmouth's property crime index is 5,551 per 100,000 (2008 data), much higher than Virginia's average level of 2,820 per 100,000. Portsmouth has 2.29 officers per 100,000 residents, compared to a Virginia average of 3.38 per 100,000.

Eight property crimes have been reported within 0.5 mile of the cemetery property between August 9 and October 9, 2010. Most are characterized as burglaries without force, larcenies, and vandalism – crimes that are of special concern to cemeteries since they indicate the potential for cemetery-related thefts.

The cemetery is today a green and peaceful enclave surrounded by residential development. Unfortunately, the viewshed is affected by I-264 to the north, as well as spoil piles on tracts immediately to the south. Although little can be done to mitigate the visual and noise impact of I-264, the city should ensure that the tracts to the south of the cemetery are not used for light industry, but are rezoned for residential use. In addition, in the near term these properties should have stockpiled spoil and other construction debris removed.

The City of Portsmouth should also ensure that any construction associated with the Route 58, Martin Luther King Freeway Extension Project does not adversely affect the viewscape or tranquility of the cemetery. This may necessitate the construction of noise barriers. The city should also carefully ensure that the potential for secondary impacts are controlled through strict zoning and permitting. Major road projects such as this can have very damaging consequences – many not immediately recognizable – to cemetery properties.

Factors Affecting the Landscape Character

The cemetery complex is situated on the Outer Coastal Plain of the Atlantic Coastal Plain Physiographic Province of Virginia. This consists of an eastward-thickening wedge of stratified, unconsolidated and semi-consolidated alluvial and marine deposits above a crystalline basement surface. These sediments are composed primarily of gravels, sands, silts, and clays. In the Portsmouth area the depth to the crystalline basement rocks is greater than 2000 feet.

Although this coastal plain province is generally viewed as flat and featureless it is actually broken into many bays, depressions, and estuaries. As previously discussed, a drainage of Scott Creek originally ran southward through the

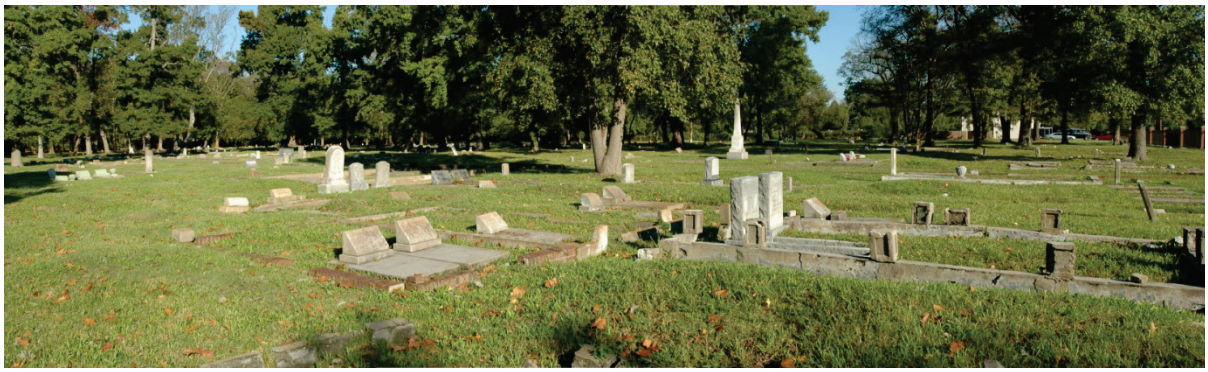


Figure 5. Panoramic view of Mount Calvary looking west.

cemetery complex area, providing drainage northward into the Elizabeth River.

The pre-contact vegetation of the Virginia coastal plain has been extensively altered, so that it is now difficult to determine what natural communities were originally dominant. The contemporary forest consists of successional or silvicultural stands of loblolly pine (*Pinus taeda*) and secondary pine-hardwood forests that developed after repeated cutting or agricultural abandonment. Mature stands on mesic uplands may be characterized by American beech (*Fagus grandifolia*), oaks (*Quercus* spp.), and American holly (*Ilex opaca*). An excellent publication on the native plants of the Virginia coastal plain is http://www.dcr.virginia.gov/natural_heritage/documents/cp_nat_plants.pdf.

The cemetery today includes a range of native trees, including sweet gum (*Liquidambar styraciflua*), pine (*Pinus* sp.), magnolia (*Magnolia grandiflora*), oak (*Quercus* sp.), tulip poplar (*Liriodendrom tulipifera*), maple (*Acer* sp.), hackberry (*Celtis occidentalis*), and sycamore (*Plantanus occidentalis*). Many of these are especially associated with more hydric soils, especially the sweet gum, hackberry, and sycamore.

The cherry laurel (*Prunus caroliniana*), while a native, is more generally found south of Virginia. It is typically spread by birds and while not classified as an invasive, it is considered an undesirable species by many.

At least one of the trees in the cemetery is a listed as moderately invasive, the mimosa (*Albizia julibrissin*). This tree was introduced in 1758 from China. It adapts easily to a wide variety of soil conditions and exhibits pale pink powder-puff-like flowers throughout summer months. Unfortunately, it can easily spread by suckers growing from roots.

Figure 6. View of Mount Olive showing more abundant vegetation.

Shrubs identified in the cemetery include yaupon holly (*Ilex vomitoria*), which can grow into a small tree; boxwood (*Buxus* sp.), and yucca (*Yucca filamentosa*). Yaupon holly can readily seed itself into the landscape, but is not considered an invasive. Boxwood is common in formal cemetery

settings, while the yucca is far more common in rural African American burial grounds.

Also present in the cemetery is the Confederate rose, (*Hibiscus mutabilis*), an old-fashioned perennial or shrub hibiscus. This plant can also seed itself into the landscape.

Two ground covers are also present and both are common in cemeteries – English ivy (*Hedera helix*) and periwinkle (*Vinca minor*). Both are considered invasive and the English ivy in particular is a significant threat in the cemetery complex, being found in trees where it was blooming at the time of this assessment.

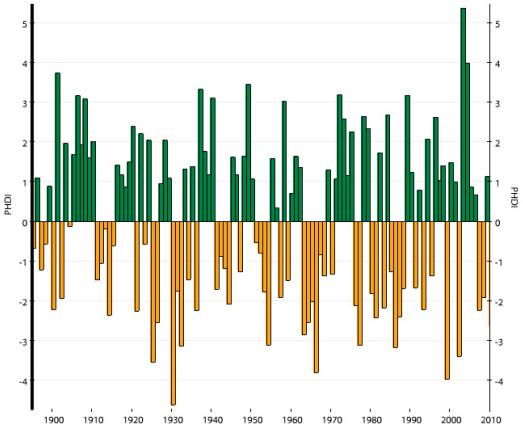


Figure 7. Palmer Drought Index for Virginia.

Virginia's climate is classified as humid subtropical. Prevailing winds flow from west to east, although occasional storms track up the coast producing northeasterly winds. These "northeasters", tropical storms, and hurricanes can produce substantial flooding and wind damage.

The average annual temperature is 58.5°F; in winter the average is 41.7°F, with an average minimum of 32°F. In summer, the average temperature is 76.4°F and the average daily maximum temperature is 86.1°F. The urban areas, however, serve to store heat so they can have temperatures 5 to 10°F higher than rural areas.

The total annual precipitation is typically in excess of 43 inches. Of this, 30.4 inches, or about 62%, usually falls in April through October, the growing season for most crops. The region has an average of 62 rainstorms per year, with an average duration of ten hours, intensity of 0.09 inches per hour, volume of 0.64 inches, and average time between rainstorms of six days. Figure 7 reveals that while 2009 produced moderate rainfall, 2007-2008 were moderate droughts.

The average growing season for the Portsmouth area is 234 days. Figure 8 shows that Portsmouth is on the border between Plant Hardiness Zones 8a (with minimum temperatures of 10 to 15°F) and 7b (with minimum temperatures of 5 to 10°F).

Because of the temperature range, Portsmouth is a transition zone between the warm season grasses such as Bermuda, centipede, and zoysia and the cool season grasses such as Kentucky bluegrass and fescue. In general, the warm season grasses do better in the coastal setting. Recommended varieties are evaluated on a yearly basis (http://pubs.ext.vt.edu/3008/3008-1456/3008-1456.html).

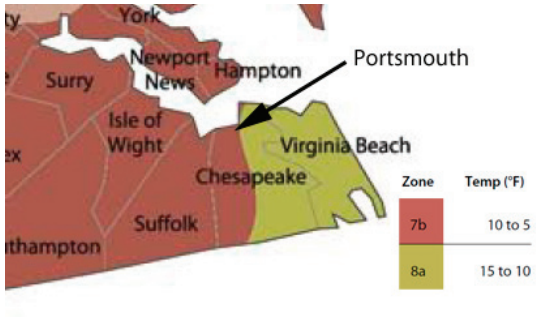


Figure 8. Plant Hardiness Zones in the Portsmouth vicinity.

A factor not only affecting the landscape but also stone preservation, is the level of pollutants. Based on monitoring in nearby Norfolk, the annual mean of NO_2 is 0.010 ppm and the annual mean of SO_2 is 0.004 ppm. These levels result in significant levels of acid rain (see Figure 9) and deterioration of marble and many sandstones.

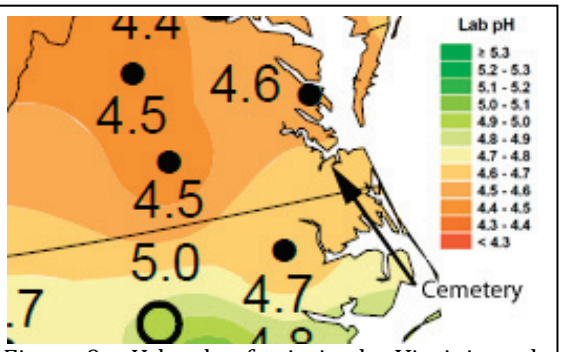


Figure 9. pH levels of rain in the Virginia and North Carolina area (pH 7 is neutral).

Figure 10 also reveals that very high chloride levels dominate the Portsmouth area. These can lead to the corrosion of iron. This affects not only iron fences, but also the ferrous

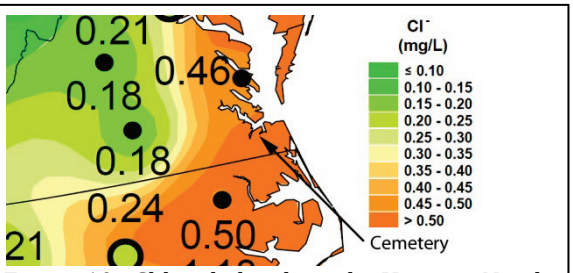


Figure 10. Chloride levels in the Virginia-North Carolina area.

pins that were commonly used in die on base stones. While sea-salt certainly contributes to these levels, they also appear to be related to a variety of man-produced pollutants.

Recommendations

The City of Portsmouth should immediately seek a determination of eligibility for the Mount Calvary, Mount Olive, and Fisher's cemeteries from the Virginia Department of Historic Resources.

All decisions regarding modifications, alterations, additions, or other actions affecting Mount Calvary, Mount Olive, Fisher's Cemetery, and the City Potter's Field should be carefully evaluated against the Secretary of the Interior's Standards for Preservation.

Special care should be taken to protect all remaining historic fabric and the context.

The City of Portsmouth should expeditiously pursue the acquisition of Mount Calvary, Mount Olive, Fisher's Cemetery, and all portions of the City Potter's Field (including those portions on the Bazemore and PRHA tracts).

The City of Portsmouth should amend the City Code to reflect their ownership of Mount Calvary, Mount Olive, Fisher's Cemetery, and the City Potter's Field, bringing these properties under the protective umbrella of the city code and ensuring that these African American cemeteries achieve the same right to perpetual care funds as other city cemeteries.

The City of Portsmouth should rezone parcels south of the cemetery to minimize the impact of light industrial zoning. A far more appropriate zoning designation is urban residential or general residential.

In the near term the City of Portsmouth should ensure that spoil and construction debris on the parcels south of the cemetery complex are removed and the viewscape restored.

HISTORIC SYNOPSIS

This assessment was not tasked with conducting historic research on the cemetery complex comprised of Mount Calvary, Mount Olive, Fisher's, and the City Potter's Field. Nevertheless, as we began the assessment we realized that there was far more unknown concerning the history of these tracts than was known. Moreover, much of the history is convoluted and poorly documented. As a result, this brief account attempts to place the history in context and identify topics that require additional research.

We found it surprisingly difficult to obtain records regarding these cemeteries from the Portsmouth's City Attorney. Initially records were promised, but then we were subsequently informed that the City Attorney works only for City Council, not the citizens of Portsmouth (and by extension certainly not for an outside consultant). Eventually, through the intercession of City Manager Brannon Godfrey, at least some materials were released.

We remain uncertain what other records the City Attorney may possess, as well as why the acquisition of simple historical documents should prove so difficult. Certainly Portsmouth – as will be shown by this sketchy account – has a long history of seeking to dismiss the complaints of its African American citizens and treating the burial places of blacks and whites very differently. Why city council, in the twenty-first century, should wish to hide its actions with regard to its cemeteries is a mystery.

Early African American Burial Grounds

It appears that there has not been any professional interest in determining where Portsmouth's early African American population was buried. In 1850 Portsmouth's population included 5,859 whites, 512 free persons of color, and 1,751 enslaved African Americans. The town ranked sixth in Virginia for the number of free persons of color, surpassed only by Petersburg (2,616), Richmond (2,369), Alexandria (1,283), Norfolk (956), and Lynchburg (545). With such a large number of blacks in Portsmouth there had to be burial grounds set apart for their use.

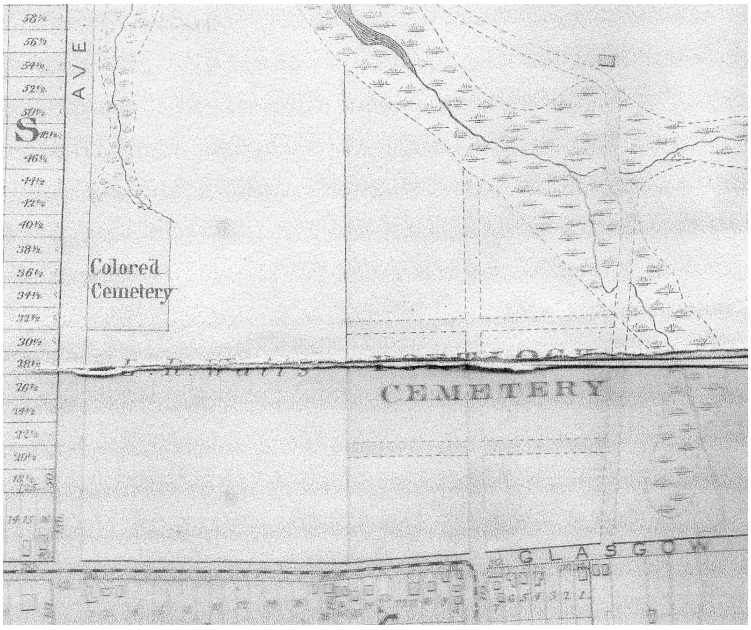


Figure 11. Map of the City of Norfolk and Vicinity, 1889 showing the Portlock (Oak Grove) Cemetery and, to the west, an African American cemetery.

The accounts of the City Potter's Field (reputed to be west of Mount Olive) seem to begin with Portsmouth's yellow fever epidemic in the summer and fall of 1855. The link between yellow fever and the City Potter's Field seems to be based on Holladay's comment that, "a 'Potter's Field' too had been bought for a negro burial-ground . . . . in the southern extremity of the city, and

with some additional land still serves the colored people" (Holladay and Burgess 2007:437).

Since it is thought that the "south side of town" probably meant south of Crab Creek (today obliterated by I-264 where it terminates at the Southern Branch of the Elizabeth River), it is possible that this might have referred to the City Potter's Cemetery west of Mount Olive.

However, the only authoritative account of the 1855 epidemic is that of the Portsmouth Relief Association (Anonymous 1856). It reports that of the 732 burials it was involved in, only 22 were African American (identified variously as "col'd," "negro," and "f n" (for free negro) (Anonymous 1856:194-199). This is not so large a number of African Americans that any special burial ground would have been needed. In addition, this source recounts that all of the lots for the yellow fever burials by the Association were in Oak Grove Cemetery (Anonymous 1856:47).

Regardless, there were additional burial grounds specifically for blacks, at least by 1889 when a map illustrates a "Colored Cemetery" about 0.5 mile west of what was then known as the Portlock Cemetery (today Oak Grove). This cemetery was incorporated into Oak Grove at its west central edge by at least the early 1920s. It seems unlikely that any of the African American graves were removed prior to the sale of plots to Portsmouth's white population. An early news article reports that, "just back of it [Portlock Cemetery] many of our loved ones lie buried, but they have been ploughed over. . . . when the place was sold [to the City of Portsmouth] we could not bury there anymore" ("Colored Notes" by Jeffrey Wilson in *Portsmouth Star*, August 29, 1924).

Another cemetery is identified as a potter's field in the rear of the Cedar Grove Cemetery Record of Names (beginning on page 123). There a series of 83 names (82 of which are African American) were listed as having died between March 1888 and April 1893. On the upper right hand corner of the page is the notation, "west of Pine Street and south of Clifford Street if extended." When this location was compared to the 1945 tax books, there was a lot, still owned by the City of Portsmouth at this location. Presumably this was the city's potter's field during the last decades of the nineteenth century. Today the area has been redeveloped and the cemetery no longer survives.

Mount Olive

A partial title search is available for the Mount Olive Cemetery. We know that on May 5, 1879 the trustees of the Mount Olive Club in Portsmouth purchased unspecified acreage for $350 (Norfolk County Register of Deeds, DB 110, pg. 517). The property was purchased from Dr. Alexander Perry, the heir of Benjamin R. Perry.

Benjamin Perry is listed in the 1850 federal census as a 47 year old farmer in the Portsmouth Parish of Norfolk County. At the time he had real estate valued at $8,000 – a sizable sum for the period. His family consisted of his wife and three children, as well as three white laborers. In addition, Perry owned eight African American slaves. By 1870 Perry was shown as 69 in the federal census and was living with his son, Edmund Perry, who was apparently managing the farm.

The trustees listed in the deed include seven individuals: Jacob Webb, James Ash, Robert Butt, Daniel Graham, Alexander Gordon, Richard Sylvester, and John Gordon. While the function of the club is not explained in the deed, it may have been formed exclusively to operate the cemetery – such arrangements were not uncommon in the last quarter of the nineteenth century among African Americans.

Regardless, we can obtain a fairly clear picture of the trustees themselves using the Portsmouth City Directories and the federal census records.

Jacob Webb is shown in the 1870 census as a 51 year old laborer. In spite of his occupation the census reported that Ash held $600 in real estate, suggesting a considerable accumulation of wealth. His family consisted of Ellen, his wife, and three children, Mary L., Sarah E., and Julia. By 1880 the census reported his occupation as a Drayman living on Back Street. In addition to

Ellen, his wife, he listed six children. The 1877 city directory shows no Jacob Webb. The 1880 director identifies him as a driver (the same as a drayman) living on Bart near Dinwiddie.

In the 1870 census James Ash was listed as a 30 year old shoemaker living with his wife, Mary R. and two children. He listed $800 in real estate and $100 in personal estate. The 1880 census continued to show Ash as a shoemaker, living with Mary R., although by this time he had three children and one, James, Jr. was also a shoemaker. Both the 1877 and 1880 city directories report a James Ash as a shoe maker living on Carroll near Green.

Robert Butt is identified in the 1870 census as a 55 year old mulatto sexton. He was living with his 60 year old wife, Harriet N., as well as a 24 year old lodger. He listed $400 in real estate and an additional $350 in personal wealth. The 1880 census reported Butt as an undertaker living on King Street with a son, a daughter-in-law, and four grandchildren. His son was listed as a laborer and his wife was listed as a servant. Both the 1877 and 1880 city directories show Butt as an undertaker on King near Court.

Daniel Graham is identified in the 1870 census as a 47 year old cooper with $500 in real estate. Living with him was his 35 year old wife Margaret Graham, a mulatto laundress; William Graham, a 20 year old steamboat hand; and 5 year old Lucrece Cross. The 1880 census identifies Graham as a teamster. His wife, Margaret, is still listed as a laundress, while his son is shown as a cook. The city directories identify Graham as living on Carroll and being a laborer.

Alexander Gordon is shown in the 1870 census as a 23 year old black laborer living as a boarder and reporting no real or personal property. He could not be identified in the 1880 census. The city directories for 1877 and 1880 identify him as a laborer. In 1877 he was living at Carroll near Green, and by 1880 was reported at High near Effingham.

Richard Gordon, in the 1870 census, was a 35 year old mulatto cook on a steamboat. His 25 year old mulatto wife, Frances, listed her occupation as keeping house and there were five children ranging in age from 1 to 10 years. By 1880 his eldest son, 19 year old Richard, was listed as a sailor.

Richard Sylvester could not be found in the 1870 census, but the 1880 reported him as a 60 year old shoemaker that was listed as disabled "in the feet." His 50 year old wife, Emma, "kept house." The 1877 city directory identifies the firm of Sylvester & Hodges on Middle Street near High. The firm consisted of Richard Sylvester and Joseph Hodges, both shoemakers. The 1880 city directory identifies only one Richard Sylvester, a laborer. While living on the correct street, Carroll, it is uncertain whether this is the same individual.

The last trustee, John Gordon, could not be identified in either the 1870 or 1880 census, but is shown in the 1880 city directory as the pastor of the Ebenezer Baptist Church, with his residence on South Street at the corner of Effingham.

The trustees of the Mount Olive Club consisted of both blacks and mulattoes; some possessed wealth, others were simple laborers; some were elderly and perhaps looking at the prospects of burial in one of the city's potter's fields, while others were relatively young. One was an undertaker, another a pastor of a local church. The group was, in many respects, similar to those who formed the African American Randolph Cemetery in Columbia, South Carolina (Trinkley and Hacker 2007).

The deed for the property reveals that the adjacent property owner to the south was William B. Whitehead while to the east the owner was Cutchins. The boundaries to the east and south were existing ditches and at least a portion of the northern boundary was also a ditch line. These ditches remain in place and continue to represent the boundaries of the cemetery.

The only trees mentioned as boundary markers are poplars – these are typically wetland or riparian trees. Between the ditches and marker trees it is likely that Mount Olive, from the time of the purchase, was considered fairly low and poorly drained.

Mount Calvary

When the Fisher family adopted the trade of undertaking is not clearly established. The 1880 federal census identifies the 35 year old Samuel Fisher as a black laborer. He was married to a 26 year old mulatto woman, Rebecca, whose occupation was listed as "keeping house." They had one child, Samuel, then 5 years old.

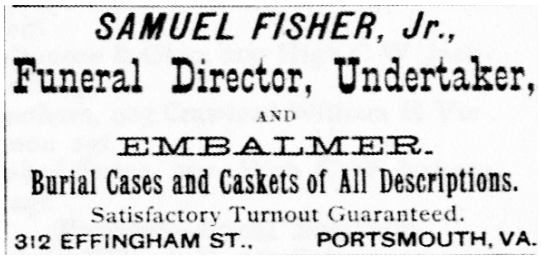


Figure 12. 1894 city directory ad for Samuel Fisher, Jr.

By the 1900 census Samuel Fisher, Sr. was 48 years old and had been married for 26 years to Rebecca. His occupation was now listed as undertaker and the family is shown as owning their home. They had four children, Samuel, 25; John T., 19; Hattie R., 16; and David A., 14. The two eldest children were listed as oystermen; the two younger children were in school.

By 1910 John T. Fisher, then listed as 29 years old and single, had followed his father's footsteps and was listed as an undertaker. His brothers, David and Jesse, were listed as Assistant Undertakers. Their mother, Rebecca, was still alive and living with them at the family residence on Effingham Street. By 1930 John T. (or F., as he was listed that year) Fisher was married to Grace, who was 42 years old. They were still living at Effingham, then valued at $5,000 – a very large sum for the period. His occupation was listed as Undertaker and there is no longer any reference to either brother. John and Grace had one child, Margaret, who was 18 years old.

When the local city directories are consulted, it becomes apparent that Samuel began in the undertaking trade by at least 1890 (although he is listed as Samuel Fisher, Jr.). While uncertain when John took over the business, he continues to be listed as an undertaker in city directories well into the late 1940s as owner of the Fisher Funeral Home.

While it is unlikely that we have access to a complete chain of title, it is clear that Samuel Fisher, Jr. gradually assembled his cemetery property from various owners.

In June 1894 Fisher acquired 2.15 acres immediately east of Mount Olive Cemetery from C.S. Sherwood and his wife, Mary E. Sherwood for $1,182.50 (Norfolk County Register of Deeds, DB 188, pg. 193). By December 1895 Fisher purchased a second parcel from Sherwood. This parcel consisted of 14 separate lots and was sold for $1,050 (Norfolk County Register of Deeds, DB 196, pg. 572). These lots are reported to be shown on a plat in Map Book 3, page 74, apparently a reference to a book today in Chesapeake County. Nevertheless, the lots may represent that portion of Fisher's Cemetery north of Mount Calvary.

In July 1898 Fisher acquired another tract, this one from Louis C. Phillips, trustee, for $600 (Norfolk County Register of Deeds, DB 218, pg. 360). This parcel consisted of eight lots and again there is a reference to Map Book 3, page 74.

Samuel Fisher, Jr. filed a will, dated December 30, 1901 and proved on April 25, 1906 (Norfolk County Will Book 10, pg. 42). Fisher provided for the payment of debts, money contributions to various fraternal organizations, and dower rights to his widow. The bulk of his estate, however, was to be divided equally between his children, Samuel, John T., and Hattie R.

As was often the case, in order to divide the property it was necessary to file an equity case. Thus on July 26, 1910 a chancery suit was filed by John T. Fisher, et al. vs. Samuel Fisher, Jr., personal representative et al. The court affirmed a proposed division of the estate (Norfolk County Register of Deeds, DB 358, pg. 171). This gave what was known as the "Cemetery Property" to David Fisher. The property was referenced on Exhibit O, a plat made by James F. Carr (Figure 13) and included:

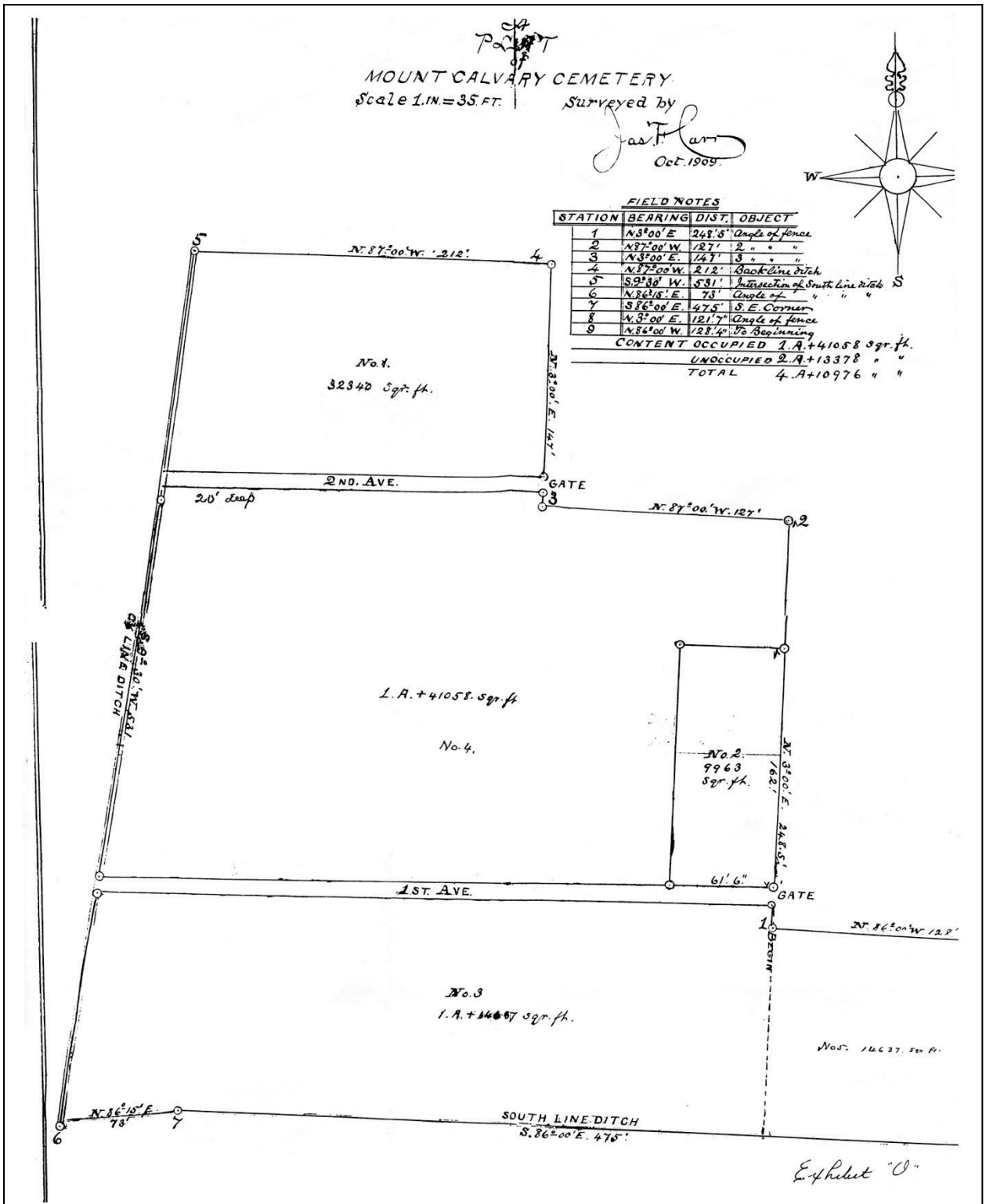


Figure 13. Plat of the Fisher "Cemetery Property" surveyed in 1909.

> Parcel No. 1 on said plat, containing 32340 square feet; Parcel No. 2 on said plat, containing 9963 square feet; Parcel No. 3 on said plat, containing One (1) Acre and 14637 square feet, the said three parcels being all the land now enclosed by a fence and known as "Mount Calvary Cemetery", excepting parcel No. 4 on said plat, which has heretofore been sold off from time to time for burial lots, or graves, and excepting also parcel No. 5 on said plat, being lots numbered 13, 14, 15, 16, and 17 as laid down on the plat of "Sherwood", in which the estate of Sam'l Fishers Jr., has only an equitable interest as will appear from the report of John W. H. Porter, Commissioner in Chancery, filed in the said cause (Norfolk County Register of Deeds, DB 358, pg. 171).

Subsequently, on August 11, 1910, lots numbered 13, 14, 15, 16, and 17, previously excluded from the deed, were included by Louis C. Phillips, Trustee (Norfolk County Register of Deeds, DB 358, pg. 183). This gave David Fisher all of "the Cemetery Property."

On January 20, 1911 David Fisher sold his brother, John T. Fisher, "the Cemetery Property" for $1,252 (Norfolk County Register of Deeds, DB 360, pg. 369). We presume that the John T. Fisher Funeral Home continued to sell these plots, just as his father Samuel had done previously.

A second plan of Mount Calvary is available from 1925 (Portsmouth Map Book 1, pg. 65-66; Figure 14). This plan is of particular importance since it reveals much about the cemetery. A formal, planned landscape is evident, with pathways running north-south from named drives. What had been 1st and 2nd Avenue in 1909 were now Maple Drive and Elm Drive. A Willow Drive is also shown connecting Maple and Elm, allowing easy movement through the cemetery. The individual lots are 20 feet square, typically sufficient for six to eight burials, depending on pre-existing vegetation on the lot.

Table 2.
Known Owners of Lots in Mount Calvary in 1944

Name	Portion	Lot	Section
Allen, Lena	½	98A	B
Bess, Ackey E.	½	175A	A
Campbell, Ernest	½	97A	B
Council, Henrette	½	157A	A
Council, Ruth	½	157A	A
Davis, Dorothy	½	111B	B
Eason, Riddick		7	A
Eason, Riddick	½	101B	B
Easton, Mary	½	118A	B
Ellis, Ida		40	A
Faulcon, Hattie	½	98B	B
Fisher Family		22	A
Gray, Lomer	½	110B	B
Harris, Ruth A.	½	3A	A
Harris, Ruth A.	½	18A	A
Hill, Leon	½	105A	B
Hill, Maggie	½	105A	B
Holmes, Della	½	103B	B
Howard, Margaret	½	11A	B
Inghran, Marion	½	83A	B
Jefferson, Amelia	½	102B	B
Jernigan, Edward	½	109A	B
Jernigan, Olivia	½	109A	B
Jiggets, Emma	½	117A	B
Johnson, B.S.	½	104B	B
Jones, John L.	½	112A	B
Jones, Martha A.	½	112A	B
Jordan, Thomas	½	13A	B
Judkins Family		91	B
Kamp, Grace	½	102A	B
Kelley, Annie	¼	96B	B
Lewis, Louisa	½	65A	B
Littleton, Rebecca	½	12B	B
Mason, Delbert	½	104B	B
McCoy, W.H.	½	101A	B
Mitchell, E.	½	47B	A
Moore, Eva Ann	½	35A	B
Mules, Jennie	½	117B	B
Parker, B.F.		42	B
Peet, Emma	½	35A	B
Pinckney, Eva	½	134A	A
Proctor, R.R.	½	73A	A
Rawls, Nelson		14	B
Reeks, William H.	½	111A	B
Reid, Nannie	½	103A	B
Rodgers, Janie	½	119B	B
Russell, Vannie L.	½	83A	B
Saunders, Ruffus	½	48A	A
Scott, Emerline Knight	½	63A	B
Simmons, Lillian	½	110A	B
Smith, Herbert	½	10B	B
Smith, Martha		41	A
Smith, Rufus J.	½	112B	B
Trotter, Ross	½	118B	B
Williams, Jesse M.	½	3A	A
Wilson, F.L.	½	97B	B

The plan also reveals the presence of a "Keeper's Quarters," just south of the gate on Maple Drive. We know from the city directories that at least for a brief period there was a keeper at the cemetery – so it is likely that this structure did exist.

This plan fails to show any burials on the northwestern parcel, immediately north of Elm Drive and corresponding to Lot No. 1 on the 1909 plan. This suggests that this area was reserved for individual graves (while the larger portion of the cemetery was sold as more expensive family plots). In addition, between 1909 and 1925 additional land had been acquired east of Lot No. 1.

Breckenridge-Haywood and Walters recount oral history that suggests about 1938,

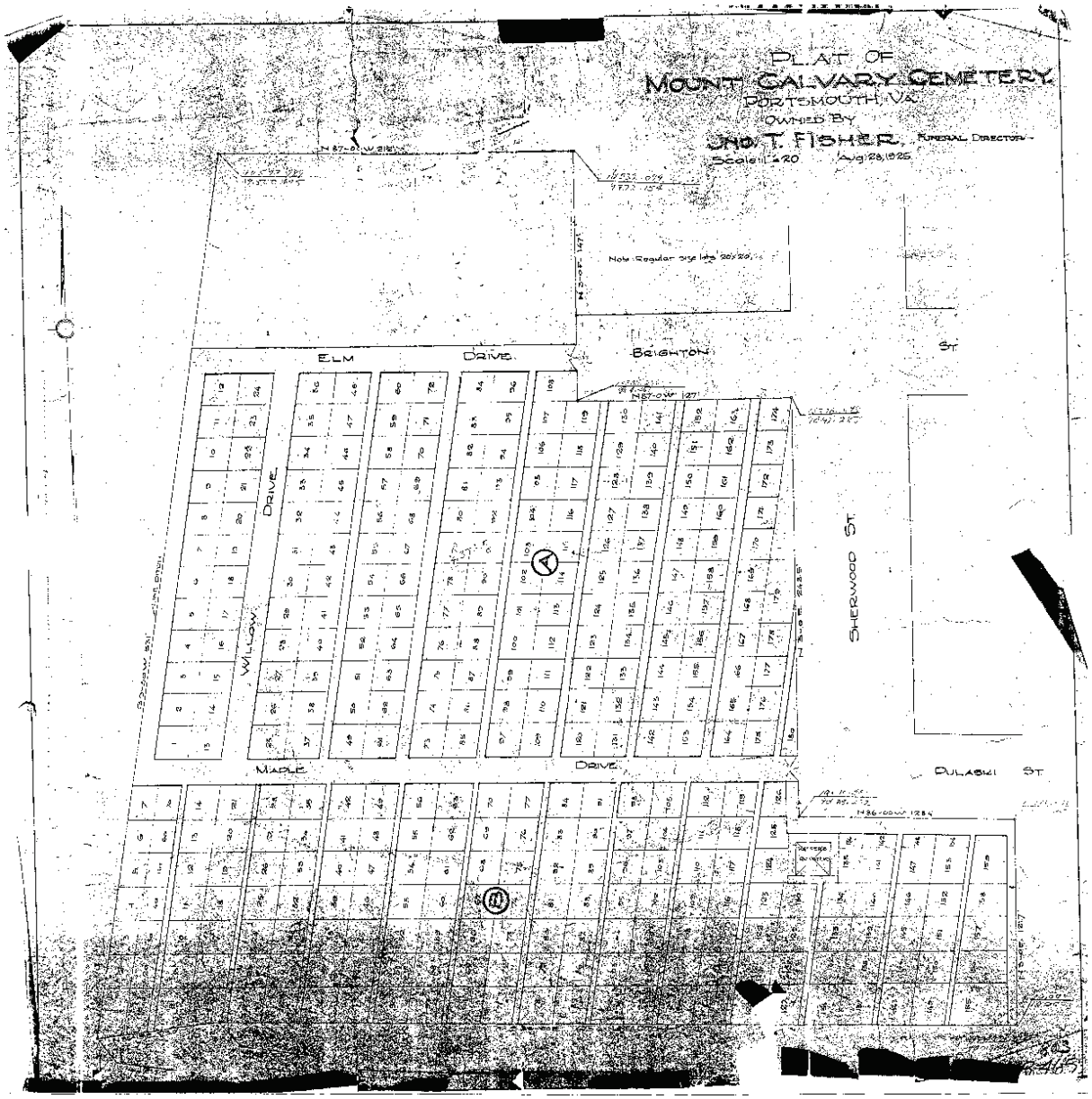


Figure 14. Plan of Mount Calvary Cemetery in 1925. Section A is shown on the 1909 plan as Nos. 2 and 4. Section B is shown on the 1909 plan as Nos. 3 (the western 75%) and 5 (the eastern 25%). The northwestern extension is shown as No. 1. The northeastern extension was not owned by Fisher in 1909. The source of this additional tract has not been determined and it is likely this portion of the cemetery that remains in the Fisher family.

The city physician, Dr. Roper, became concerned that the Fishers . . . were inadvertently digging up remains from unmarked graves when conducting new burials. Dr. Roper asked for Mr. Wimbrough, Sr.'s help. Mr. Wimbraugh worked an agreement with the Fishers that in exchange for $1,000, the Fishers would stop burying in the cemetery unless the lot owners had specific deeds and lot locations. This effectively closed the cemetery except for an occasional burial by a Mr. Green who lived nearby (Breckenridge-Haywood and Walters 2002:xiii-xiv).

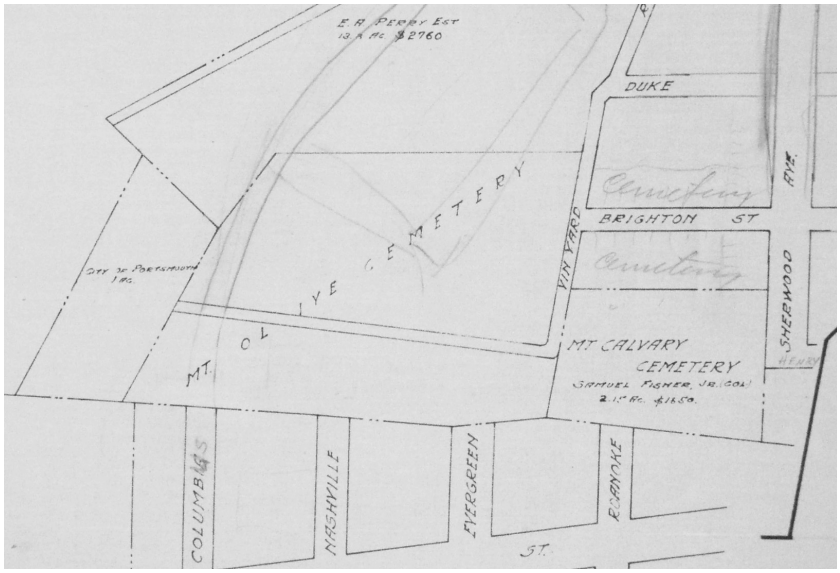


Figure 15. The cemetery complex shown on the 1945 Portsmouth Tax Map.

Although the Portsmouth Health Department claims this would be beyond the scope of their work, the agency has no surviving records from that time period (according to both their records manager and the Library of Virginia). However, in the 1930s the head of the Department was a Dr. Lonsdale J. Roper – which provides some credence. The reference to a "Mr. Green," is almost certainly Spencer Green, who lived on Sherwood according to the 1936 city director. Green listed his occupation as "gravedigger." Why, however, he was allowed to continue burials on the property isn't clear. Finally, the city council minutes for 1938 were reviewed and no mention was found of the burial grounds being closed or of the city paying for cessation of burials.

Thus, while there are threads of consistency in the story, it has been impossible to demonstrate that burials were no longer being allowed in the cemetery complex.

In 1944 John T. Fisher, still in the funeral home business, sold "The Cemetery Property" to Carl E. Wimbrough for $3,500 (Portsmouth Register of Deeds, DB 141, pg. 53). This deed includes a list of individuals who had purchased lots in Mount Calvary (Table 2). This list reveals that most purchased only half a lot (probably 4 graves) and one individual purchased only a quarter of a lot (probably two graves). Only seven families purchased an entire lot. With only 28½ lots purchased as of 1944, this couldn't have been an especially profitable endeavor for the Fishers.

On the other hand, it is likely that there are numerous individual graves that were sold by the Fisher Funeral Home that aren't identified in this table. It was not (and still isn't) uncommon for African American undertakers to have graveyards where they could offer clients inexpensive graves. Unfortunately, without the Samuel and John T. Fisher records it will be impossible to reconstruct the financial or social history of this burial ground.

The 1938 city directory reveals that Wimbrough was in the burial vault business. His son, Vernon E. Wimbrough, was the bookkeeper for the firm. Why Fisher sought to divest himself of the property is not clear. Nor is it clear if Wimbrough maintained the formal appearance of

Mount Calvary or began selling off individual plots in order to maximize his profit.

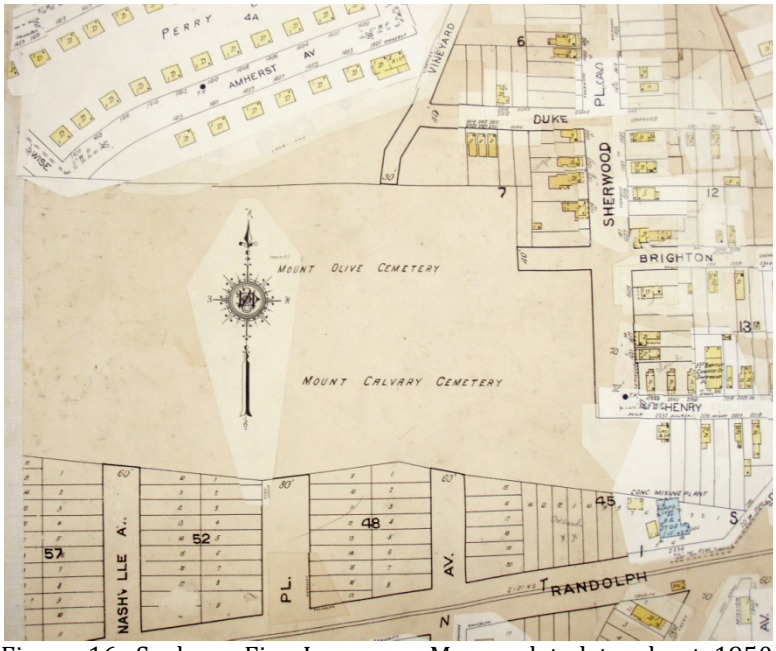


Figure 16. Sanborn Fire Insurance Map updated to about 1950 showing the cemetery complex.

Figure 15 illustrates the cemetery complex as shown in the 1945 tax maps (Ester Murdaugh Wilson Memorial Room at the Portsmouth Public Library). The map still shows Fisher as owning Mt. Calvary with a taxable value assigned of $1,650 – apparently the city had not yet updated ownership. In pencil, above Mount Calvary and above Brighton Avenue, is "cemetery," reflecting the extension of Mount Calvary into these areas.

To the west is Mount Olive. No owner is shown there, perhaps suggesting that by this time the Mount Olive Club had ceased to function and ownership was uncertain. Further to west is a tract of 1 acre, owned by the City of Portsmouth. This is the so-called potter's field, briefly discussed below.

The ca. 1950 Sanborn Fire Insurance map (Ester Murdaugh Wilson Memorial Room at the Portsmouth Public Library; Figure 16) is far less precise and it offers relatively little additional information concerning the burial grounds.

In 1953 Wimbrough conveyed the property to the firm Wimbrough and Sons and that same year Wimbrough and Sons sold the property to Lincoln Memorial Cemetery Corp. (Portsmouth Register of Deeds, DB 260, pg. 75). This was another Wimbrough business; we have not, however, explored its activities.

In 2003, Lincoln Memorial Cemetery Corp. sold "The Cemetery Property" to the City of Portsmouth for $1. Review of the City Council minutes for the two months preceding this acquisition and the month following provided no mention of the transfer, although the council did go into numerous closed sessions where no minutes were kept. It seems curious that this property was acquired by the city and there was no discussion of the property or its maintenance.

Potter's Field

On April 12, 1882 Norfolk County purchased a one-acre parcel from the Perry family for $115, as well as a right-of-way to the parcel. The property was described as "bounded on the East, on the South by a ditch running a South west course dividing this land from land for the late Wm. B. Whitehead thence North along other land of said Edmond A. Perry thence East along other land or the farm of said Est. Perry to the point of beginning." This property was "adjoining on the West said Grave Yard Club" – a reference to the Mount Olive Club.

No where in the deed does the county reference the intended purpose of the property, although the VDOT work clearly demonstrates that the property was used for burials (Barry et al. 2007). It would obviously be useful to examine Council Council records for the early 1880s to determine more about the early history of the property. It seems likely that the property was intended for the burial of indigents, although it certainly did not date to the 1850s as has been previously claimed. It would also be useful to

examine the records in more detail to ascertain how the property was transferred from the county to the city.

The Cemetery Complex in the Twentieth Century

Much of what is known about the cemeteries in the twentieth century comes from newspaper accounts. Unfortunately, none of the Portsmouth papers is thoroughly indexed, so it is likely that this brief review barely scratches the surface of this extraordinary resource.

One of the earliest identified accounts is from 1924 when it was reported that,

> Colored veterans of the Grand Army of the Republic and of the Spanish and World Wars observed National Memorial Day with a parade this afternoon and a program of exercises at Mt. Calvary cemetery (*The Portsmouth Star*, May 30, 1924, page 5).

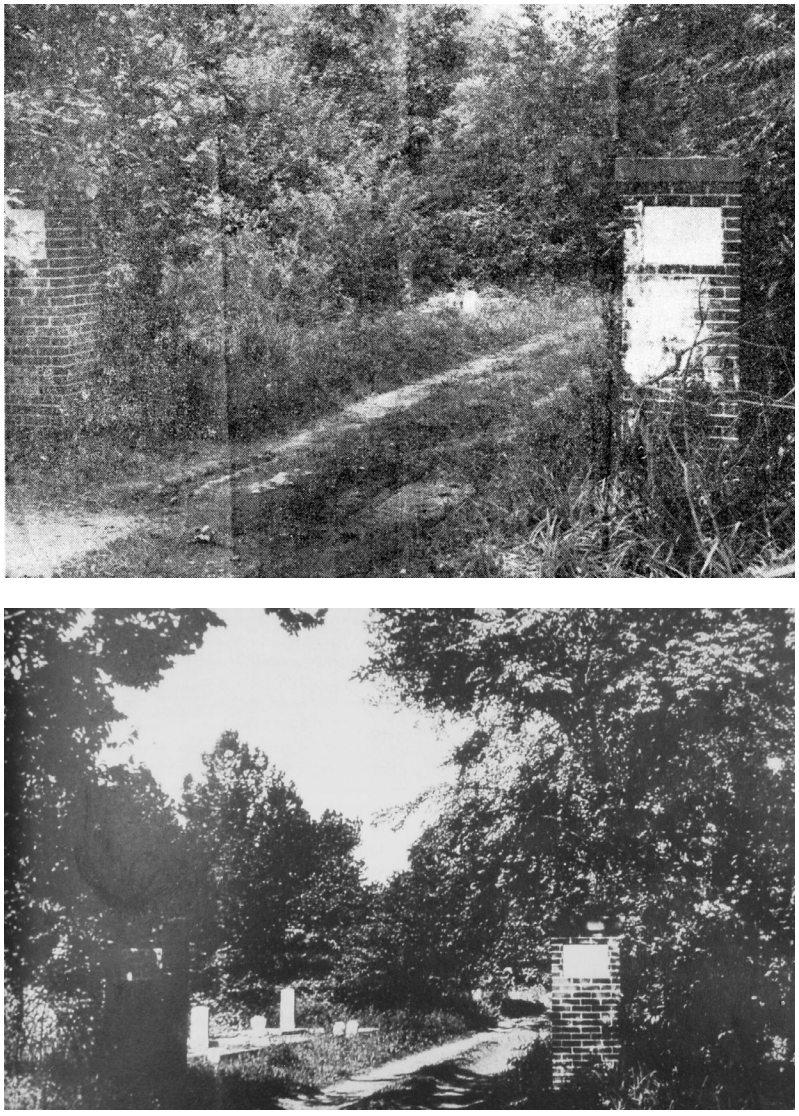


Figure 17. Entrance to Mount Calvary in 1974 and about 1980, when the property was owned by the Wimbrough family. There is some improvement, but even in the 1980s much of the cemetery remained a jungle (1974 is a *Ledger-Star* photo by Mike Williams; ca. 1980 is from the Ester Murdaugh Wilson Memorial Room at the Portsmouth Public Library).

The article goes on to list the organizations involved, including not only military groups, but also a large number of African American groups, including the Knights of Pythias, the Palestine Guard of the Knights Templar, the Pioneer Lodge of the B.P.H. of B., the Arctic Lodge of B.P.O. of Reindeer, the Radio Lodge of F.O.F., the Manhattan Social Club, the Beacon Light Lodge of Elks, and the Sons of Portsmouth. The article also identifies those in charge – perhaps representing officials associated with Mt. Calvary – including George Turner, President; John T. Fisher, acting Secretary; Morse Shepherd, Director General; Joseph Scott, Assistant; and Professor W. E. Riddick, Treasurer.

Just a few months later an article talking about African American life in Portsmouth commented that blacks "now bury at 'Lincoln' and 'Calvary' or 'Fisher's' and Mount Olive. The city of Portsmouth provides no burial place for our people. All of our burial places are privately owned and the grass and weeds are so high we

Figure 18. Changes during mid-century. The top aerial is from February 1951. The bottom is from March 1963. These photos show the increase in cemetery vegetation over 13 years, as well as changes in the surrounding neighborhood. Even as late as 1963, however, drainages can be seen north of the cemetery.

cannot find the graves scarcely" (*Portsmouth Star*, August 29, 1924). This article is important since it reveals that Mount Calvary and Fisher's were used interchangeably by this time. It also points out that even as early as 1924 – in the midst of Jim Crow – Portsmouth's African American community clearly recognized the disparity in city burial operations.

A September 1924 article recounted another event at Mount Olive, noting that 600 people attended (*Portsmouth Star*, September 9, 1924). This article lists a variety of fraternal organizations and the deceased members buried at Mount Olive – this may provide at least a few names for the countless unmarked burials in the cemetery. It also reveals how active these cemeteries were during the 1920s.

Unfortunately we have few additional articles for nearly 50 years. An October 2, 1954 article reveals that by this time the cemetery complex was "wooded" and "unkempt" ("The Honored Dead Find in Hard to 'Rest in Peace' in Portsmouth," *New Journal and Guide*, October 2, 1954, pg. D19). It goes on to describe "jungle-like growth" and the discovery of human bone on the surface. The article also reveals that at this time the cemetery had a part-time caretaker, Walter Carr, who was paid by different families to maintain some of the plots. Reporting very shallow ground water, Mr. Carr noted that graves couldn't be dug deeper than 4 feet in the cemetery complex. This article revealed that Carl Wimbrough was the owner. When the paper enquired about conditions, he reportedly said that it was up the the families to maintain their plots. The city manager at the time, I.G. Vans, provided no "satisfactory answer" concerning the condition of the cemetery or why Portsmouth had no city operated burial ground for African Americans.

Later newspaper accounts do explain that in 1960 the City of Portsmouth was faced with a federal court suit demanding integration of the city-owned white cemeteries, Olive Branch, Oak Grove, and Cedar Grove. In order to avoid integration, the city chose to sell the properties to Wimbrough & Sons – a firm owned by Vernon Wimbrough, a commissioner of the Portsmouth Redevelopment and Housing Authority. By this time the Wimbrough family had owned Mount Calvary for about 17 years.

While the city sold its white-only cemeteries, it maintained its obligation to provide perpetual care to these white burials. Apparently the Olive Branch Cemetery Corp., to which the cemeteries were sold, was chartered Sept 8, 1960, several days after the city had sold the properties. The city responded to the civil rights suit claiming that it no longer owned the cemeteries in question and the suit was dismissed.

We also know that in 1965, perhaps as a result of the earlier desegregation suit, the City of Portsmouth used its Summer Youth Corps to clean up the African American cemetery complex, removing the jungle and hauling away mounds of trash ("Hearing Aimed at Cemeteries," *Ledger-Star*, July 2, 1974). At this time, of course, Mount Calvary was owned by the Wimbrough family and it is difficult to understand why the city chose to clean the property of an owner capable of cleaning the tract themselves.

Then, in 1973 we learn that a delegation of African American citizens lead by Mrs. Hilda C. Watson called on the Portsmouth Citizens Advisory Committee (CAC) to obtain their assistance in obtaining maintenance of the cemetery complex ("Condition of Cemeteries for Blacks Under Study, *Ledger-Star*, June 5, 1973). We can only conclude that the African American community did not realize that the Wimbrough family owned Mount Calvary and could easily have maintained the tract if they had desired to do so.

The article went on to note that the road into the cemetery complex was deeply rutted, filled with water, and passable only to pedestrians. Neighbors complained of the condition of the cemeteries.

A subsequent article reported that a report was due from the Citizens Advisory Committee ("Cemetery Condition report Due Monday," *Ledger-Star*, August 3, 1973), but we have found no follow-up article until October, at which time local African American citizens were reported to be meeting. The article gives a clue concerning the city's response to the report,

noting that "the problem is that the cemeteries were established by undertakers as private operations and the city is not prepared to undertake maintenance" (Blacks Plan Meet on Cemetery Plans, *Ledger-Star*, October 3, 1973). This is the response of the city for the 50 years that black taxpayers have attempted to obtain parity in cemetery operations.

In November 1974 it appeared that something might be done to maintain the cemeteries. An effort was organized by "building contractor Warren L. Holland, Sr." who used his equipment to open three roads into Mount Calvary, although Mount Olive Cemetery to the west was "largely untouched" ("Overdue Work on Graves Starts," *Virginian Pilot*, November 3, 1974). Again, it is difficult to understand why the owner of the property – the Wimbrough Lincoln Memorial Cemetery Corp. – was not required to maintain the cemetery.

Regardless, the article explains that Mrs. Hilda Watson was then chair of "a newly established board of trustees." Others listed include Holland, Winston Pearson, Rev. C.H. Jordan (pastor of Third Baptist), Rev. C. Charles Vache (Trinity Episcopal), Dr. Charles Price, Miss Ruth Mayhall (Wesley Community Center), Bruce M. Watts, Mrs. Hilda Jackson, and Dean Sword. Nothing else is explained about that group, such as its goals or organization. The article also reminded readers that David Corley with CAC "spent months looking into the problem and preparing a report on what might be done."

Holland is also reported to have explained that "it is virtually certain that the tract fenced in by PRHA was once a burial ground for paupers and its use as an equipment yard now is inappropriate." Nevertheless, this yard continued to be used for equipment storage by PRHA for an additional 30 years (and only recently has the equipment been moved).

By December 1974 the newspaper reported that city officials were continuing to "skirt the question of perpetual care." Then assistant city manager H.M. Myers is quoted as saying, "when you talk about perpetual care for one, you have to talk about it for all. The results could be far reaching" – a curious comment since the city was still providing perpetual care for the city's white cemeteries, in spite of having sold the properties to a private firm ("Old Cemeteries Pose Costly New Problems," *Virginia-Pilot*, December 1, 1974).

Several requests for funding had been presented to the city for use of a small portion of the $4.5 million in federal community development funds that Portsmouth was allocated. CAC, however, also sidestepped the issue by placing the cemeteries in their Category 4 – proposals with "need and desirability for adoption, but [that] require more staff study or research to consider adequately." By postponing actions, CAC succeeded in ensuring that none of the funds would be devoted to the African American burial grounds.

Only a few days later it was reported that the controversy might be ready to boil over. At least one city councilman, Archie Elliott "raised questions about the city's role in cemetery operation." City manager Phin Horton was told to gather information and report back ("Cemetery Issue Showdown Coming," *Ledger-Star*, December 5, 1974). There is no indication that any study was actually conducted. The next account reports acrimony and the appointment of yet another group to "study" the situation – but no substantive action as the city's white dominated city council held firm. Councilman James W. Holley III threatened that the city's black citizens might be forced to return to court to demand that the white only cemeteries be integrated ("Cemetery Care Issue Explodes at Council, *Virginia-Pilot*, December 18, 1974).

In January 1975 Warren Holland again reiterated his claim that the pauper's cemetery was deeded to the city and was the city's responsibility to restore – there is no indication, however, that the city responded in any fashion. There was also an effort to have the cemeteries "registered by the Virginia Landmarks Commission" – an action that was apparently unsuccessful. It was also revealed that the city had "spent $1.3 million for perpetual care in what amount[ed] to city-owned segregated cemeteries since 1961" ("5 Former City Councilmen Lie in

Unkept Cemeteries," *Virginian-Pilot*, January 7, 1975).

The committee set up by council in mid-December to study the cemetery situation reported that additional time was needed in mid-February ("Cemetery Probe Needs 'More Time'," *Ledger-Star*, February 12, 1975). The report was again delayed in March ("Report on Cemeteries Delayed," *Ledger-Star*, March 11, 1975).

Although newspaper accounts of the April 8, 1975 city council meeting report that the study of the black cemeteries was still not complete, it does reveal that the city council voted to open the city's segregated cemeteries to African Americans, officially integrating Olive Branch, Oak Grove, and Cedar Grove ("Cemetery Cleanup Voted," *Virginian-Pilot*, April 10, 1975; "Grave Issue Ends, Hail Equality Rule," *New Journal and Guide*, April 19, 1975, pg. 1). The council also voted "5-2 to direct private agencies to restore three black burial grounds which were closed by the city's health department in 1964." What exactly was meant by "private agencies" is not clear and unfortunately we have not identified newspaper articles that address whether any effort was made to clean the cemeteries. The *New Journal and Guide* actually reported that city council "decreed the city will take the responsibility of maintaining Fisher Hill, Mount Calvary and Mount Olive Cemeteries."

The next newspaper account we have found dates from May 1980 and reports that the Mason's Lebanon Lodge No. 34 was attempting to clean the cemetery complex. A photograph in the article shows the cemetery entirely wooded – suggesting that nothing had been done since the Summer Youth Corps cleaned the property in 1965 ("Fisher's Hill – Lodge Members Restoring Dignity to 2 Cemeteries," *Currents*, May 6, 1980). Shortly thereafter a memorial service was held by the Masons at the cemetery ("Memorial Service Slated at Cemetery," *Currents*, May 15, 1980). This memorial service was held again in 1981, although we have not identified anything concerning the condition of the cemeteries at the time ("Memorial Service at Fisher's Hill," *Currents*, May 29, 1981).

In 1985 the city's involvement with the cemeteries was again an issue, suggesting that after the instructions to clean the cemeteries a decade earlier the issue was dropped. Apparently in 1982 the city attempted to contact owners of the properties; letters were sent to heirs and newspaper ads were run. The maintenance efforts were reported to be spotty and "at this time, the city continues to attempt to get the cemeteries on some regular maintenance schedule" (Black Cemeteries Need to be Maintained," *Currents*, February 16, 1985).

It was another year, however, before the city finally began allocating funds to the cemeteries. Initial bids ranged from $95,000 to $420,000 for the work – far more than city council was willing to pay, so the scope was scaled back and the project was apparently rebid ("Black Cemeteries Will Receive City Cleanup," *Currents*, February 27, 1987).

The article also reported that the city had petitioned the Circuit Court for an order to proceed with the work, with the order being issued in November 1986. The city was required to post a $50,000 bond against damage to monuments.

This is confirmed by the August 28, 1986 city council minutes in which the city manager explained that the Code of Virginia 57-39.1 "provides that the City may petition the Circuit Court to require the owners of private cemeteries to place the same in suitable condition or to allow the petitioner to enter upon the land to place the same in a suitable condition" (http://www.portsmouthva.gov/weblink7CCMinutes/PDF/brdfxozwjb14qhm3oxiyak55/Minutes%2008261986.pdf). It is not clear from the minutes, however, if the Wimbrough's Lincoln Memorial Cemetery Corp. refused to maintain Mount Calvary or if the city never sought their participation in this effort.

What hasn't been discussed is that the city council also included two additional cemeteries in their resolution. One was the Ebony Heights Cemetery, the other was Barclay Cemetery. Ebony Heights is a predominately black neighborhood comprising an 11-block area off

Towne Point Road in Churchland. The Barclay Cemetery is next to Cradock Middle School at the intersection of Aylwin Crescent and Abbott Place. The current status or condition of these other cemeteries is unknown.

We also learn from the February 27, 1987 article that the organization founded by Mrs. Hilda C. Watson donated their treasury – $488.56 – to the city. Apparently the group was never successful in generating support or funding for the preservation of the cemeteries.

By June the city had spent $60,000 clearing the first section of the cemetery complex – yet "summer growth is almost overtaking the area again" ("Cooperation Necessary for Care of City's Neglected Cemeteries," *Currents*, June 12, 1987). The city, in spite of decades of ignoring the problem, began pleading for relatives and descendents to take responsibility, "We'll never be able to keep up with it if citizens don't come forward to help us" – a plead not heard for the city's previously white-only cemeteries.

Tom Eaton, Assistant Director of the city's Parks and Recreation Department is reported to have claimed a plot plan for Mount Calvary showed 13,092 gravesites, and that "old city records estimate about 6,500 sites in Mount Olive and another 15,000 at Fisher's Hill and in a potter's field."

It is likely that these figures are confused. For example, the only plan of Mount Calvary we have identified shows 346 lots, most with a standard size of 20 feet square. Assuming 8 burials per plot, this would allow 2,768 burials – not the 13,092 claimed. In addition, Fisher's Hill, at least by this time, seems to have been applied broadly to include both Mount Calvary and the small cemetery to the north. Thus, it is improbable that the two properties combined would have had the over 28,000 burials claimed.

When allocating space, the general procedure is to recognize a certain amount is "wasted" on pathways, trees and other plantings, monuments, and so forth. Prior to the advent of private, commercial cemeteries, the average was 58 square feet per grave (Anonymous 1983). Using this estimate Mount Calvary might have 2,290 plots – about 478 plots less than we have calculated based on maximizing burials.

Thus, the 479,160 square feet (11 acres) might have as many as 8,261 plots. This suggests that either the numbers suggested in the 1987 newspaper article are grossly overstated or else many burials intrude into pre-existing remains.

A 1988 article reported that Mount Calvary was again "overgrown with weeds and littered with debris" (Cemetery Cleanup Effort Well Ahead of Schedule," *Currents*, May 15, 1988). This work, using students from the Clarke Vocations Training Center, was spearheaded by Lonnie Ruffin Tree Service. It is unclear if the work was paid for by the city, but it was likely part of the city's clean-up efforts. A photograph accompanying the account, however, again shows a densely wooded section of the cemetery complex.

By 1990 the cemeteries were again the focus of civic events, with a Black History Month event being sponsored by I.C. Norcom High School Association ("Black History Event Set at Cemeteries," *Currents*, February 18, 1990).

A June 1990 article claimed that the three-years of cleaning had been completed at the cemetery complex and that the cemeteries would now be "open to the public from sunup until sundown seven days a week" ("Two Cemeteries Reopen After Three-Year Cleanup," *Portsmouth Review*, June 11, 1990).

We find another gap in news coverage until 1998 when Bettie Jo Matthews, a local genealogist, turned over her survey of graves in the cemetery complex to the African-American Historical Society of Portsmouth ("African American Graves Survey Presented to Historical Society," *Virginian-Pilot*, March 20, 1998).

Also in 1998 the Minority Police Officers Association signed a Memorandum of Agreement with the City of Portsmouth. The agreement stipulated that the city would cut the grass, enhance lighting, put up a fence, and seek to gain ownership of the complex while the Association

would "repair broken tombstones . . . set up overturned stones and clean neglected areas" ("Portsmouth Officers Vow to Uncover Black History," *Virginian-Pilot*, June 25, 1998; see also "Minority Officers Take Responsibility for City Treasures," *Virginian-Pilot*, June 28, 1998). The Association's president, James E. Lewis claimed, "This is not a one-time thing with us. It will be a long-term commitment and I think we will leave a lasting impression on the city."

In February 1999 the city announced their plans to erect a $52,000 fence and it is reported that the Association was working in the cemeteries "regularly" ("Portsmouth Pitches in for Restoration of Three Historically Black Cemeteries," *Virginian-Pilot*, February 27, 1999). The fence was apparently the approximately 250 feet of modern fencing along Pulaski Street. Nevertheless, with the death of the Association's president the project was dropped – we have found no indication that any actions were undertaken by the group.

Another gap occurs until the 2001 article discussing the publication of the book, *Inscriptions in Triumph* by Mae Breckenridge-Haywood and Dinah Walters ("'Like Walking Through An African-American History Book' Portsmouth Cemeteries Open A Window On Past For Historian-Authors," *Virginia Pilot*, September 8, 2001).

In 2004 an article appeared that noted how inexpensive burial plots were in Portsmouth's city funded cemeteries when compared to nearby communities. The article also reported that the city was spending $140,000 a year maintaining just two of the city's three cemeteries – calling into question the city's repeated pleas that it couldn't maintain Portsmouth's African American burial grounds ("A Bargain Hunter," *Virginian-Pilot*, October 21, 2004).

The next article we have identified is the July 2008 account of finding an open grave in the cemetery complex. At the time Mike Morris, the Public Works Director, explained that the condition of this one grave is not an anomaly in the cemetery and that other similarly open graves also exist. The article also reports that at some point the Sheriff's inmate work crews took over maintenance of the cemetery from the city ("Discovery Underscores Grim Conditions of Historic Portsmouth Cemeteries," *Virginian-Pilot*, July 29, 2008).

A number of articles appeared in 2009, most reiterating the poor condition of the cemeteries. In February the City Attorney's Office confirmed that the city owns Mount Calvary, while the ownership of Fisher's just to the north and Mount Olive to the west were not clear. The article also recounts a presentation by Ms. Christina Carlton to City Council in January asking why Mount Calvary – which the city acknowledged they owned – was not being provided the same level of care as the historically white cemeteries. Assistant City Attorney Gene White said he didn't know the answer to that question. Curiously, City Attorney Timothy Oksman responded that he doubted any prompt action by the city would be unlikely – that, "there will be a cost associated with this type of effort and we'll have to see what that is and make some hard decisions about whether and when that cost may be affordable." While the city publically dragged its feet, the article also reported that within hours the Sheriff's Inmate Crew was again at the cemetery helping to improve conditions ("Historic African American Cemeteries Need Care and Repairs," *Virginian-Pilot*, February 8, 2009).

While the City Attorney suggested that maintenance of the cemeteries might be too costly, the Planning Commission approved rezoning of five parcels adjoining Mount Calvary, allowing them to be used for cemetery plots. Apparently the property owners, John C. Holland, Jr., JoAnn H. Nesson, and Jonnie H. Franklin, expressed an interest in donating the property to the city. The article fails to explain why that donation required rezoning and the property couldn't be used for greenspace ("City Could Add More Land to Historic Cemetery," *Virginian Pilot*, July 22, 2009). Regardless, the property was subsequently donated and is currently owned by the city. Certainly it would be odd if the city wished to create more cemetery space when it claims it can't adequately and appropriately maintain the cemetery it already owns.

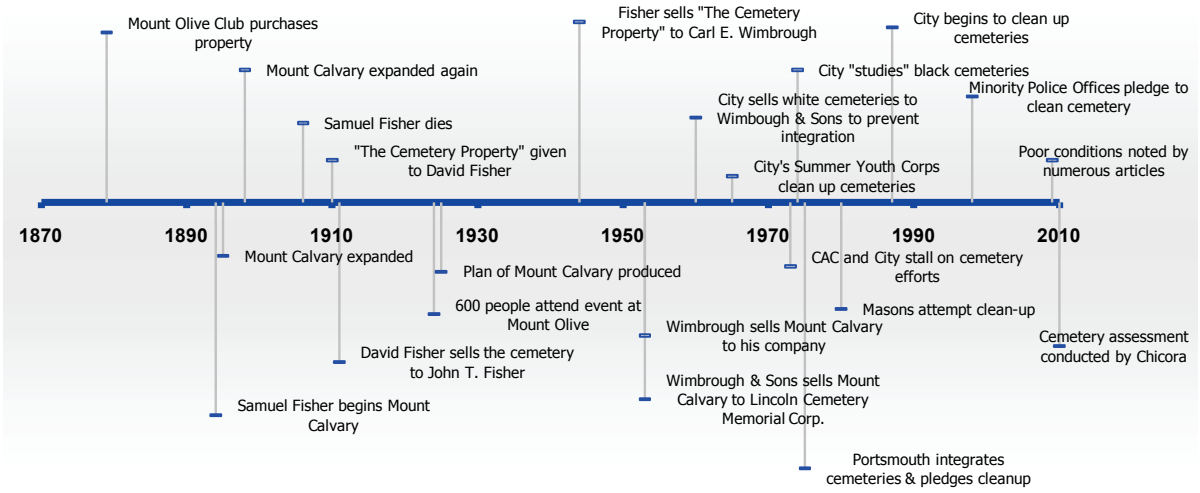


Figure 19. Timeline of the Mount Calvary, Mount Olive, Fisher's, and Potter's Field Cemetery Complex.

In early October 2009 the city announced that it had hired the firm of Stephen Boone & Associates "to survey the perimeter of the entire burial grounds as a preamble to legal proceedings to acquire the long-abandoned Mount Olive and Fisher's Hill properties" ("Minus Caretaker, Burial Grounds Keep Crumbling," *Virginian-Pilot*, October 11, 2009). The article went on to quote the owner of the firm hired as indicating the survey would be completed by mid-October. Curiously, as of October 6, 2010 – a year after it was begun – it is not yet ready to be released (Meg Pittenger, personal communication 2010).

In 2010 Ms. Carlton wondered why it had taken months for the city to get to the downed trees in the African American cemeteries. In the article City Attorney Timothy Oksman also acknowledged that the city had found the deed "that confirms the city owns the potter's field" ("Her Relentless Effort to Tidy Their Final Resting Place," *Virginian-Pilot*, February 27, 2010).

By October 2010 it appears that the Fisher family expressed an interest in donating the Fisher's Cemetery north of Mount Calvary to the city, hoping that unpaid taxes on the property would be forgiven and that they could acquire a tax deduction for the donation (email from Tim Oksman to Charles Whitehurst, October 1, 2010). The email also references historical records – presumably funeral home records associated with burials at Fisher's Hill.

Summary

The brief timeline of the cemeteries shown in Figure 19 may help to place at least some of these historical events in perspective.

We know the least, of course, about the potter's field. Of the larger cemeteries, Mount Olive is the least well known. It was begun in 1879 and was clearly still an important part of the African American community as late as 1924. Similarly, Mount Calvary, created between 1894-1898, was a thriving enterprise at least as late as 1925 when a plan was produced.

It may have been during the depression years of the 1930s that both cemeteries began to see signs of collapse. The 1930s and 1940s were also the period of significant African American migration, leaving the Jim Crow south for better opportunities elsewhere. This may have served to diminish the number of family members able to help maintain family plots.

By the 1950s it is likely that neither cemetery was profitable and that maintenance was no longer being provided. It was in the 1960s that the African American community, aware of Portsmouth's efforts to maintain segregation of cemeteries began to demand their burial places be better cared for. Seeing their taxes spent on white cemeteries they understandably sought parity and demanded that the city provide equal funding to maintain Mount Calvary and Mount Olive.

The city spent the next 30 years fighting these efforts using delay tactics, pleading inadequate finances, and simply ignoring requests. It wasn't until the 1990s that Portsmouth belatedly began efforts to recover and restore the cemetery complex at Pulaski Street.

It is clear, however, that old ways die hard. Even today the city lacks a vision for the African American burial grounds. This lack of vision may also represent a lack of will to find the funds and ensure that after decades of Jim Crow, Mount Calvary and Mount Olive receive city support and maintenance.

Previous Studies

In 2006 the city's Department of Parks, Recreation and Leisure Services undertook a 10-year master plan for the city cemeteries, including Mount Calvary, Mount Olive, and Fisher's. While potter's field is not included in the title, we can extend the recommendations to include this property as well.

Six projects were identified: improving drainage, filling sunken graves, establishing roadways, resetting headstones, placing trash cans, and evaluation of signage. For the larger tasks, such as drainage, sunken graves, and roadways, the plan referenced assistance from other departments – yet in no case has this assistance ever been sought. In each of these cases the plan also failed to estimate the associated costs. For the less expensive tasks – trash cans and signage – the plan felt that neither were necessary.

The 10-year plan, while identifying critical issues within the cemetery complex, failed to take any steps to solve these problems. Today, the problems remain as critical as when the study was conducted four years ago.

The cemetery complex was briefly studied in 2007 as part of the cultural resources study for the VDOT Route 58, Martin Luther King Freeway Extension (Barry et al. 2007). As a result of that study, a Department of Historic Resources Reconnaissance Level Survey form was completed for the cemetery complex (DHR #124-5125).

This study generated concern that the proposed highway corridor would impact graves in the potter's field section of the cemetery. As a result, 32 trenches were mechanically stripped in an effort to identify grave shafts. Twenty-three of these trenches were within the area thought to represent the potter's field cemetery. At least 13 of these trenches (10, 13, 17, 18, 20, 21, 22, 23, 24, 25, 29, 31, and 32) produced clearly identifiable coffin stains. As a result, it is clear that burials are present on the 1-acre plot purchased in 1882 by Norfolk County.

Perhaps more importantly, this study also revealed that burials extend off the city-owned property, onto an adjacent tract (208-30) owned by James E. Bazemore, Sr. We have no historical data for this additional tract.

There are at least eight rows of graves on the potter's field property. While there is a slight difference in orientations, all run generally southwest-northeast – but they do not follow the property line. At least two of these rows extend northward onto the Bazemore property.

There are at least five additional rows of graves, having an orientation of approximately south-southwest by north-northeast in the central Bazemore tract. These graves appear distinct from those in the potter's field, not only in orientation but also in complexity. This suggests that more is going on in this area than we currently understand.

The study assigned the archaeological site number 44PM0062/124-5125 to the Mt. Olive Potter's Field and Mt. Calvary Cemetery complex. It was determined that the potter's field is eligible for inclusion on the National Register of Historic

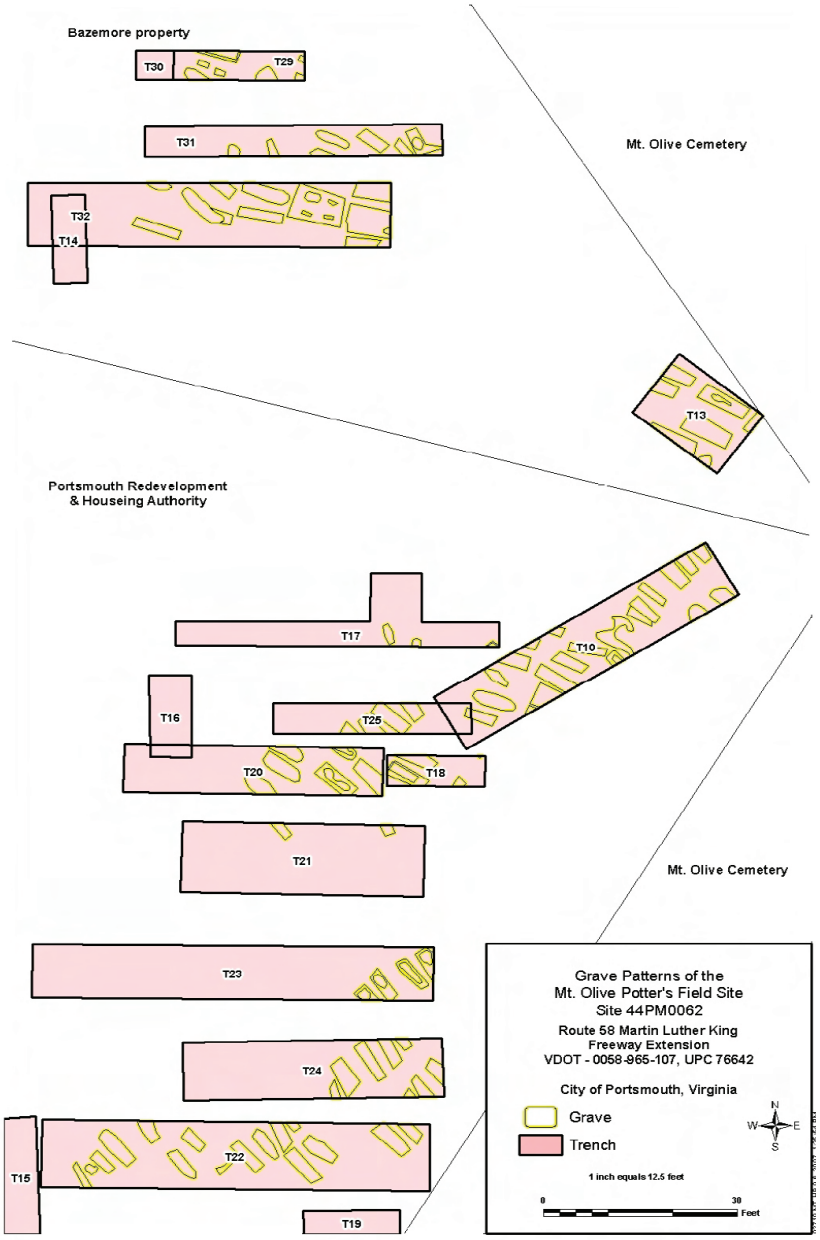


Figure 20. Graves identified through stripping in potter's field and the adjacent Bazemore property (adapted from Barry et al. 2007:Figure 34).

Places under Criteria A, B, and D (letter to Ms. Margaret Stephenson, Virginia Department of Transportation from Mr. Marc Holma, Department of Historic Resources, dated January 7, 2008).

Given proximity, similar soil conditions, and similar temporal periods, we have every reason to believe that the bioarchaeological remains at Mount Calvary, Mount Olive, and Fisher's will be identical to those found during this study.

Additional Research

Clearly there is much additional historical research to be conducted. Since the city appears reluctant to release records, we recommend that a freedom of information inquiry be filed to compel the release of these documents. They are public records, collected using public funds and we can see no attorney-client privilege.

These records should shed light on how the city acquired the so-called potter's field and how the property was transferred to the Portsmouth Redevelopment and Housing Authority. The records may help explain why – when the city's 1945 tax map showed the city as the owner of the property – the parcel was allowed to become abandoned and eventually used for equipment storage. The records may also help explain why even today the city has not reclaimed this parcel.

Additional title research is needed for the Bazemore tract in an effort to understand the origin and meaning of graves on the parcel.

The records of Norfolk County should be examined to see if the use of the potter's field can be identified in council minutes or departmental correspondence (some agency had to be responsible for the use of this property).

It is also critical that the title search identify how and when the eastern portion of Fisher's Cemetery came into the ownership of the Fisher family.

Much work is needed to understand how Samuel Fisher and subsequently John T. Fisher used Mount Calvary. Much of this may be possible only if Fisher Funeral Home records – reported by a recent city email to actually exist – are made public and historians have the opportunity to examine them. While we suspect that much of the property was sold as individual grave plots (rather than family plots), this can be confirmed only through records research.

Additional research should be directed toward better understanding the function of the Mount Olive Club. Newspaper accounts may help identify the role of the club, officers, and perhaps how the organization sold or otherwise used its property.

It will also be useful to understand the relationship between the Wimbrough family and the City of Portsmouth. It seems to be too much of a coincidence that the Wimbrough's acquire Mount Calvary and hold the land quietly for nearly six decades, allowing the cemetery to slip into a state of abandonment and utter dilapidation. During this time citizens repeatedly cried out for assistance from city, typically to be ignored. Occasionally, however, the city allocated its own resources toward maintenance of the property – rather than demanding that the company which owned other cemeteries and was making a profit from their operation take steps to clean and maintain the African American burial grounds. It also would be intriguing to better understand the circumstances surrounding the sale of Mount Calvary to the city in 2003.

While we are uncertain how productive the effort would be, we recommend that the city council minutes be searched for any references to the cemeteries or their owners. There may also be additional newspaper articles, especially for time periods not well covered at the present time.

DRAINAGE ISSUES

Existing Conditions

As explained in a previous section, the cemetery complex is found on Tomotley-Urban land complex soils with very minor slopes, very poor drainage, and a seasonal high water table within a foot of the ground surface. We also know that even when Mount Olive was first purchased, three of the boundaries were either wholly or partially ditches. All of the boundary trees were also poplars – typical wet soil vegetation.

Historic maps (Figure 21) also reveal a drainage that flowed from the cemetery area northward to Scott Creek and from there into the Elizabeth River. In 1902 the drainage stopped north of the cemeteries, although topographic lines reveal the cemetery area to be part of the creek's drainage area. By 1921 the area around the cemetery complex has been developed and artificial drainage ditches appear to have been put in to help provide drainage.

Between 1961 and 1967 I-264 was built running east-west across this drainage. Far more impervious surfaces, such as roads, driveways, and parking lots, were constructed and these have added to the run-off.

The cemetery itself has had additional vegetation grow up, increasing the amount of moisture held by the soils. Given the absence of maintenance, it is unlikely that any drainage ditch maintenance has been conducted on the property in over 50 years. Only recently has the vegetation that clogged many of the ditches been removed by volunteers.

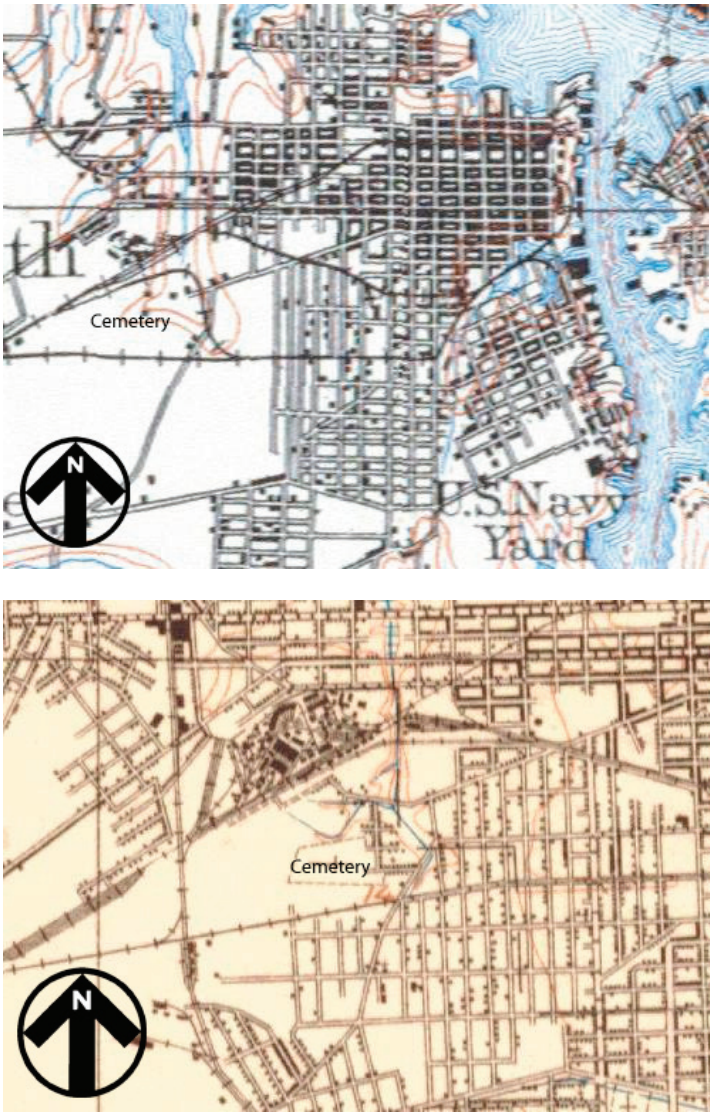


Figure 21. Historic maps of the cemetery complex showing the prevailing drainage pattern. At the top is the 1902 Norfolk topographic map showing the cemetery at the head of a drainage flowing northward to Scott Creek. At the bottom is the 1921 Newport News topographic map that continues to show this drainage, although as the area developed the drainage was bifurcated, probably to assist in draining the low grounds.

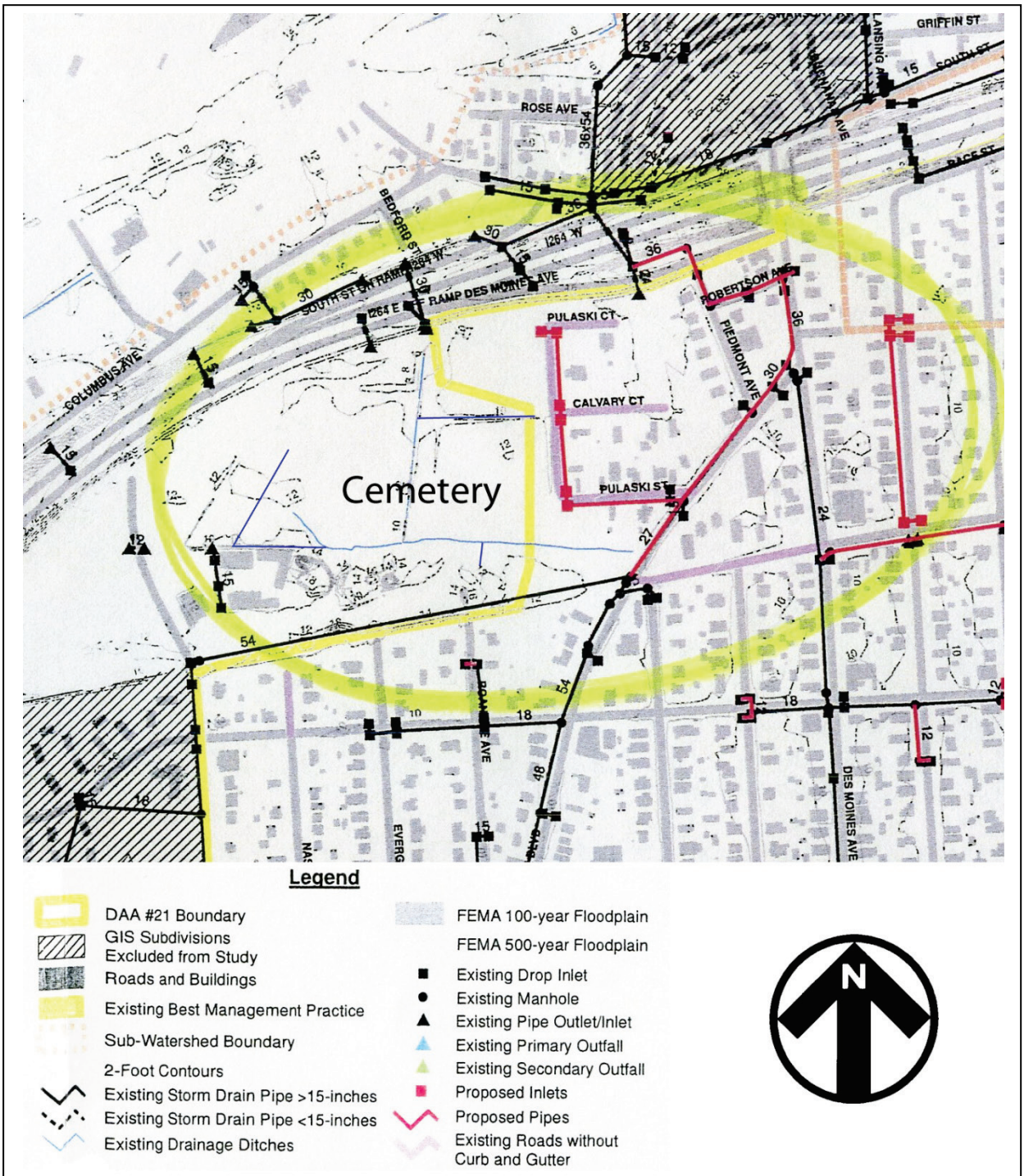


Figure 22. A small portion of the Prentis Park Drainage Assessment Area, showing drainage in the vicinity of the cemetery complex. Additional ditches added in dark blue as a result of field checks.

Figure 23. Water drainage in the cemetery after several days without rain. Upper left, north-south ditch near the west end of Mount Olive looking north. Upper right, north-south ditch between Mount Calvary and Mount Olive looking north. Lower left, north-south drain between Mount Calvary and Mount Olive looking south. Lower right, ditch and ponded area at the northwest corner of Mount Olive, looking southwest.

Figure 24. Examples of vaults, sunken graves, and other features filled with standing water on a regular basis.

Figure 25. Drainage problems in the cemetery complex during heavy rainfall events. Photos courtesy Christina Carlton.

A city-wide drainage assessment conducted in 2007 by HDR reveals the extent of the problem throughout the city. The report notes that "many of the residential neighborhoods lack an appropriate drainage infrastructure" or they have inadequate capacity (HDR 2007:1). Other areas are subject to tidal inundation. The study notes that the most common neighborhood drainage system is the open ditch – found in backyards and/or along roads. Older neighborhoods – such as Prentis Park – have more problems than newer sections of the city.

The study found that the typical drainage ditches are not only aesthetically undesirable, but consist of small diameter pipes that easily clog. In conjunction with the low, flat terrain, there is "ponding of water which only slowly drains after the rainfall event has passed" (HDR 2007:2).

Figure 22 is a small section of the HDR Prentis Park Drainage Assessment Area, showing the vicinity of the cemetery complex. It reveals that the cemetery is drained by one 36-inch pipe crossing under I-264, although it is not clear from this plan where that pipe drains north of the interstate. We understand that once water makes it to this interstate drainage, it flows under the highway, along the ramp from South Street to box culverts across South Street (Bill Collier, VDOT Hampton Roads District, Interstate Maintenance Manager, personal communication 2010). Mr. Collier also noted that the water coming from the cemeteries would essentially "compete" with water from a variety of other sources during a storm. Nevertheless, the ditch flowing from the cemetery is 24-inches, while that under the interstate is 36-inches.

The cemetery itself is shown as being drained by one ditch along its southern edge and by a north flowing ditch situated between Mount Calvary and Mount Olive. Our survey added an additional ditch along the western edge of the cemetery complex, as well as a ditch between Mount Calvary and Fisher's. At least one ditch flows into that along the southern edge of the property.

Of these ditches, all are open, although there are culverts (about 18-inch pipes) laid under the road at crossings. The ditches are about 3 feet in depth and have a rounded-V to elliptical cross section. All are vegetated and some appear to be clogged with vegetation, including trees, or other debris. We did not take elevations of the extant ditches to determine their existing grades. During this assessment, however, only one ditch – that flowing northward between Mount Calvary and Mount Olive – exhibited a free flow. That flow was not measured but appeared to be very slow. Other ditches, however, were stagnant with no appreciable movement.

We did not inspect the condition of the drainage under I-264 or the maintenance practices on the VDOT right of way.

Figure 23 illustrates the condition of ditches and cemetery area at the time of our assessment, several days after the most recent rain. Ditches remained full and there were multiple areas in the cemetery where there was standing water. In addition, many of the vaults behave as reservoirs and thus were filled with water (Figure 24). Figure 25 illustrates the condition of the cemetery during a significant rain event, revealing even more significant ponding of water.

All of this data indicates that drainage in the cemetery is poor and remains one of the most significant factors affecting long-term preservation.

The poor drainage obviously affects the ability to perform landscape maintenance. The wet ground bogs mowers and vehicles. It affects the ability of visitors to navigate safely through the cemetery. The wet ground undermines monuments, causing foundations to fail. The standing water promotes the breeding of numerous mosquito species, many of which are disease vectors. The high water table promotes rutting and damage to the roadways in the cemetery. In addition, vaults filled with water – even if not breeding disease – present aesthetic issues that detract from the beauty and serenity of the cemetery, discourage visitation, and dismay to relatives of the deceased.

The Virginia Department of Health, Vector-borne Disease Control, notes that, "standing water and organic matter, such as decaying leaves, provide ideal habitat for mosquitoes to breed" (http://www.vdh.state.va.us/epidemiology/DEE/Vectorborne/mosquitofaq.htm). This is the precise situation identified throughout Mount Calvary, Mount Olive, and Fisher's. Specific diseases spread by mosquitoes and known to exist in eastern Virginia include West Nile virus (WNV), eastern equine encephalitis (EEE) and St. Louis encephalitis (SLE). Although not naturally occurring in Virginia, malaria is another mosquito-borne disease that is sometimes reported in the state.

As a result, the flooding and poor drainage in the cemetery complex is not simply an aesthetic issue or inconvenience, it poses a significant liability to the citizens of Portsmouth, those who work in the cemetery, and those who visit the property. It is critical that the owner(s) of these properties work to improve drainage.

Curiously, this is an issue recognized by the City of Portsmouth for other properties. The city's website notes:

> Ditch maintenance consists of cutting vegetation and removing debris/sediment that impedes the natural flow of water. If weather permits, ditch crews will cut public ditches 3 times per year to maintain the flow line. Residents are responsible for maintaining the banks of ditches that are adjacent to or run through their property.
>
> Crews also inspect and repair the banks of public ditches to prevent blockages and subsequent ditch failure. (http://www.portsmouthva.gov/publicworks/stormwater_operations.aspx).

For reasons that are not clear, the city does not appear to have ever required cemetery property owners – including the city itself – to maintain the ditches on this property.

In spite of this, the city website indicates that 2 of the 8 locations where active breeding sites were found within a mile of the downtown (25%) were situated in the cemetery complex (http://www.portsmouthva.gov/publicworks/thebuzz/2009/thebuzz05-01-09.aspx).

Analysis

In November 2006 the city's Department of Parks, Recreation and Leisure Services prepared a 10 year master plan. In this plan, the first item for the Mount Calvary, Mount Olive, Fisher's, and Potter's Field cemeteries was:

> Serious drainage issues are persistent at this cemetery. It appears that drainage from the surrounding neighborhood also collects in the cemetery. Extensive work needs to be done at this location. A complete drainage plan should be done for this area. The amount of work to be done is far beyond what the Perpetual Care Fund will ever be able to address. It is recommended that the City Engineering Department assist in creating a drainage plan for this location and add this to the future Capital Improvement Program (Anonymous 2007:16).

In spite of this assessment, no such drainage study was ever conducted and there is no evidence that the Department of Parks, Recreation and Leisure Services ever requested that the City Engineer undertake a study. When questioned about this recommendation we were told that it is unlikely such a study will ever be done because of the cost (Meg Pittman, personal communication 2010).

This creates a confusing – and troubling – scenario wherein the city owns the properties, recognizes the problem, admits the seriousness of the problem, but is expressing no willingness to take steps to rectify the problem. This is in spite of

the city's own website in which the hazards of mosquitoes are recognized, and the city assumes the responsibility for maintaining public ditches.

This may leave the citizens of Portsmouth with no viable alternative except to bring suit against the city to force the drainage situation at these cemeteries to studies – and most importantly rectified.

While the city has neglected its responsibility with regard to these drainage problems, we can venture to identify at least some issues.

In general, when water backs up during a storm, there is likely a capacity issue. In other words, the existing ditch network cannot move water off the property as quickly as it is being generated by the storm or is flowing onto the site from elsewhere. VDOT notes that there is less than a foot of elevation difference between the cemetery pipe at the interstate and the box culvert at South Street (Bill Collier, VDOT Hampton Roads District, Interstate Maintenance Manager, personal communication 2010). With such a very limited grade (not to mention the low topography of Portsmouth), water will drain slowly.

However, if this water stays on the cemetery after the storm and only slowly is absorbed into the soil, this scenario suggests design issues at the cemetery itself. In other words, there are inadequate ditches or other drains to move the water off.

One design solution would be to increase drains, including even the installation of subsurface tile drains. Using such techniques it is possible to make even low soils suitable for agriculture by lowering the inherent water table.

Such an approach, while suitable during the design of the cemetery, is impossible once a cemetery has been created. Adding drainage would require extensive archaeological investigations and likely the exhumation and reburial of at least some remains.

While existing drains may be widened or deepened, it is unlikely that new drains are a viable solution to the design problems that may eventually be documented at the cemetery complex.

Another option – albeit long-term – is for the Prentis Park Drainage improvements to ensure that water from adjacent properties is diverted away from the cemetery and handled *prior* to arriving on the cemetery tract. This should have been a critical feature of the HDR plan, but it seems to have been ignored.

In the short-term, the only viable option may be improved ditch maintenance.

Most fundamentally, open ditches are open designed to be vee-shaped or trapezoidal in cross-section. Intended to ensure free flow of water, they are usually designed to have a grade of not less than 1% (i.e., a fall of not less than 1 in 100).

Virtually all authorities agree that open ditches require periodic maintenance. As ditch maintenance declines, there is diminished flow capacity as a result of the accumulation of silt, debris, and other blockages. Further reducing the ability of ditches is increased development. As there are more impervious surfaces, there is more water run-off with more discharge into the ditch network.

In order to maintain flow and avoid obstructions ditches are cleaned and reshaped. Vegetation within the ditch is removed. Ditch length, width, and height are dredged back to their original dimensions. Mowing, which causes less erosion of exposed soil, is often a more viable approach than mechanical cleaning. Nevertheless, it is critical that ditch sides are well shaped, clean, and properly graded – something which cannot be said for the ditches in the cemetery property(http://environment.transportation.org/environmental_issues/construct_maint_prac/compendium/manual/10_11.aspx).

Thus, the city should immediately assume the task of cleaning, reshaping, and improving the grade of ditches within the cemetery complex. The city's public works department must place the cemetery ditches on its routine maintenance list

and ensure that the ditches are cleaned tri-annually.

The city's stormwater management department should focus efforts on larval reduction in the cemetery area using biological controls.

Recommendations

As owner of the cemetery complex the city should fulfill its own 2007 recommendation and immediately conduct a detailed assessment of drainage issues at the cemetery complex. The existing drainage issues promote mosquito development and pose significant hazards to the visiting public. The drainage problems at the cemetery are also disturbing to descendants who see the graves of loved ones consistently flooded.

The city should ensure that the Prentis Park Drainage Improvement Plan takes into consideration the drainage issues already existing in the cemetery. No additional water should be funneled into this catchment area.

The city should immediately begin routine tri-annual cleaning, reshaping, and grade improvement of the existing ditches in the cemetery complex.

The city should immediately begin a larval mosquito control program in the cemetery complex using biological controls.

ROADS AND PEDESTRIAN ISSUES

As is clear from the previous discussions, the cemetery complex is comprised of perhaps four different cemeteries: Mount Olive, Mount Calvary, potter's field, and Fisher's. Nevertheless, today they are generally viewed as one cemetery – and it appears that eventually that the city will acquire ownership of all four. Consequently, this discussion examines the issues of roads and pedestrian access for the tracts as though they are one entity.

Access and Circulation

Maps of the properties reveal that historically Mount Calvary was accessed by one of two roads: either Maple Drive (at the end of Pulaski) or Elm (at the end of what is today Calvary and was previously called Brighton). These east-west roads were connected close to the western boundary of the cemetery by Willow Drive (Figure 14).

These roads remain today, although in various conditions. All three are soil based-roads; Maple has occasional areas of gravel, but is rutted and difficult to traverse in wet weather. Elm is even more poorly graded and far less frequently traveled. Willow can be discerned among the graves, but there is no indication that it has been used as a road in many years.

Mount Olive was apparently accessed by Brighton (Elm Drive), which passed over the ditch separating Mount Olive and Mount Calvary and dead ended in Vinyard [sic] Street, which ran north-south along the eastern edge of Mount Olive. A road, apparently an extension of Maple, continued west to the western end of Mount Olive.

Today, the north-south Vinyard Road is still evident, although not drivable. The extension of Maple is in fair condition and can be driven during good weather.

All of these roads are 8 feet in width with graves in close proximity to both shoulders. None are surfaced and all are badly rutted; their condition is made worse by the poor drainage in the cemetery and failure to maintain the roads for many years. Crossing of ditches appears to be achieved using 18-inch pipes that appear to be in satisfactory condition. The roads are relatively flat, providing no crown to promote drainage off the road. There is no evidence that the roads were ever professionally constructed.

Thus, the cemetery complex is facing multiple access issues. The roads are poorly constructed and maintained, there is no visitor parking area, and those driving into the cemetery soon realize that there is no convenient means of getting back out (i.e., there is no true circulation pattern).

The first issue should be the construction of more permanent roads in the cemetery. The city has a Public Works Department that certainly is able to design and construct adequate light duty roadways. That should be an immediate task for the city. Although asphalt roads can clearly be constructed on the soils in the area – as evidenced by the recently paved Pulaski Street and Calvary Court – this is probably not necessary in the cemetery given the relatively low visitation anticipated.

Ideally, roads should be built on soils that are strong and well-drained – features that are not likely present in the cemetery complex. These problems may be surmountable through the use of a woven geotextile to help maintain separation between the subsoil and the overlying gravel. With a geotextile it may be possible to construct the roadways using 10 to 12-inches of gravel.

We recommend that the roadways originally identified as Maple, Elm, and Willow be graveled and identified as one-way roads. This would allow visitors to drive into the cemetery

Figure 26. Entrances to the cemetery complex. Upper photo shows the Maple Drive entrance at the end of Pulaski Street. The middle photo shows the Elm Drive entrance at the end of Calvary Street. The bottom photo shows the wet conditions and potholes in Maple Drive at the time of the assessment.

and exit without having to turn around on graves or wet soils.

These gravel roads should require relatively minimal maintenance by the city. Low spots will need to be periodically filled with gravel scraped from high spots. The curves at the north and south end of Willow may have gravel pushed to the outer edges; these areas will require that the gravel be brought back to the center and inner part of the curves. However, given the low anticipated use of the road, this maintenance is not expected to be costly.

We also recommend that Maple (or Vinyard) be extended to the rear of Mount Olive, but that this road be closed to routine travel through the use of a chain or lockable bollards. This would allow a roadway for routine maintenance, but it would prevent the public from driving to the rear of the cemetery.

During this work the drainages under the road between Mount Calvary and Mount Olive could be increased in size, providing some additional safety margin for drainage of the property.

There is a third roadway, running off Pulaski, following I-264 to the west, and providing access to the rear of Mount Olive and the potter's field. This is not a historic road and with the improvement of the existing Maple and Elm access roads, we do not believe this access is necessary. Since it is largely obscured from public view for much of its route, we recommend that the road be closed, perhaps with a chain or lockable bollards. There already exists here a dilapidated chain link fence. It may be appropriate to repair this fence and install lockable gates.

As a longer-term goal the city may wish to acquire one of the tracts to the north or east of Fisher Cemetery for a parking area. This would remove traffic from within the cemetery and allow access to be refocused on pedestrian activities. This would promote heritage tourism visitation and would lend itself to more focused interpretative efforts.

Pedestrian Access, Sidewalks and Pathways

Situated in a residential neighborhood there is little pedestrian activity. There are no

sidewalks or walking tours that incorporate the cemetery complex. Some in the neighborhood use the cemetery as a convenient cut through – an activity that should be discouraged.

While the arrangement of Mount Olive is unclear, the historic map of Mount Calvary clearly reveals that the property was laid out with 3 foot pathways running north-south between every two family plots. These pathways would have provided convenient pedestrian access to plots throughout the burial ground. These pathways are still visible in some sections of the cemetery today (Figure 27), although the loss of coping and clearly defined plots have made these pathways difficult to identify in many areas. Moreover, it is likely that no paths existed in Fisher's Cemetery or in potter's field – burials were likely placed in a gridded arrangement. Such designs tend to maximize available plots and there was little thought given to pedestrian movement since cemetery visitation was limited to burials.

Figure 27. Mount Calvary showing pathway between family plots.

Although it eventually may be possible to redefine the planned paths in some cemetery areas, for the foreseeable future the only well-defined access areas for pedestrians will be the roads themselves. This is not likely a significant issue given the low visitation.

Universal Access

There are few naturally limiting factors for ADA compliance or universal access at the cemetery. The topography is such that ramps are unnecessary. The major limiting factor is the poorly drained soil that would make wheelchair access problematical. Likewise, the proposed gravel roads would be impossible for wheelchair movement.

While extensive modifications would be out of character, at the present level of use we are not convinced that there is a demand adequate to justify either the expense or the damage to the historic fabric.

In addition, the ADA or the Rehabilitation Act of 1973 is generally not interpreted to apply to cemeteries by the Department of Justice. Nevertheless, we are an aging population and it would be appropriate for the city to establish a protocol that would allow staff to assist wheelchair patrons or other disabled reach specific gravesites in the cemetery. Some cemeteries have achieved this goal by training their staff in the correct means of assisting the disabled[1] and by providing golf carts to help ferry individuals to grave locations. This should be a long-term goal of the city for the cemetery.

Another low impact approach suitable for tourism is to ensure that there are interpretative plaques and exhibits at the entrance – allowing disabled visitors to experience and learn about the cemeteries.

[1] Sites for establishing such protocols include http://www.apparelyzed.com/etiquette.html, http://www.afb.org/Section.asp?SectionID=36&TopicID=163&DocumentID=2104, http://www.unitedspinal.org/pdf/DisabilityEtiquette.pdf, and http://faculty.ed.uiuc.edu/tgrayson/SPED205/Etiquette.html, .

Recommendations

We recommend that the city Public Works Department construct all-weather gravel roads in Mount Calvary along Maple, Elm, and Willow. The resulting road should be identified as one-way; it would provide convenient movement through the cemetery.

We recommend that Maple/Vinyard westward from the ditchline separating Mount Calvary and Mount Olive also be improved, but that this section of road be closed to routine traffic.

We recommend that the northern access road, running to the western end of the cemetery be closed to public travel. This road is not historic and poses significant security issues to the cemetery and visitors.

While at least Mount Calvary and probably Mount Olive at one point had pedestrian pathways, these are no longer clearly visible. Fisher's and potter's field likely never had any pathways. Regardless, visitation at the cemetery does not reveal a need for pathways at present.

We do not recommend major efforts to provide universal access at the cemetery at this time.

The city should establish a protocol for assisting disabled clients and visitors. This should include appropriate training of staff and a means to provide access to remote graves.

LIGHTING AND SECURITY ISSUES

Vandalism

At the time of our assessment, caregivers reported no known vandalism. There is, however, evidence of toppled stones that, absent vandalism, would likely still be standing. Thus, at some point in time the cemetery has seen intentional damage.

It is, however, difficult in many cases to distinguish vandalism from poorly set stones, acts of nature, or previous clearing efforts. As revealed by the historical documentation, the cemetery has gone through cycles of abandonment followed by cleaning using various techniques.

Figure 28. This stone was likely vandalized (the base is relatively level and there are no trees or stumps nearby).

The Parks, Recreation and Leisure Services Department – the city's caretaker of the cemetery – has no formalized mechanism for reporting vandalism. When local citizens have reported problems to the local police, it is reported that no action was taken by police, who apparently left it up to Parks, Recreation and Leisure Services to deal with the incident.

We know from the previous discussion that the cemetery is situated in an area where property crimes are relatively high. For example, in 2009 the Prentis Park neighborhood reported 167 larcenies and 129 incidents of vandalism. The cemetery area therefore ranks third in number of larcenies (Westhaven Park and Brighton each reported more) and ranks first in vandalism (followed by Port Norfolk and Brighton).

We know also that the Parks, Recreation and Leisure Services Department does not have a permanent cemetery crew that would not only improve maintenance (there is a correlation between maintenance and vandalism), but also provide a visible presence in the cemetery.

Fencing at the cemetery is found only in selected areas, forming a permeable boundary. In addition, none of the entrances have lockable gates.

At the present time there is no systematic inspection process – either by the city or by a caregiver group. It seems unlikely that the city staff – visiting the cemetery complex so irregularly – would recognize vandalism for what it is, or have any idea when it occurred. It will be difficult to ascertain the level of damage the cemetery suffers without some method of periodic inspection.

As will be discussed more fully in a following section, we recommend a stone-by-stone assessment for the cemetery, documenting all stones requiring conservation treatments. With this photo documentation in hand it will be possible for the city to not only begin budgeting

for the necessary repairs, but also recognize new damages when they occur.

We also recommend that a friends group be created. Such a group could begin "patrols" of the cemetery. The goal is not to have these groups confront vandals, but to be eyes and ears, providing a public presence in the cemetery and immediately reporting any suspicious activities. There are a number of people interested in cemeteries and cemetery preservation. We do not believe it would be difficult to organize such a group to help protect such a valuable city resource.

Another approach we recommend is for representatives of Parks, Recreation and Leisure Services to contact the residents immediately adjacent to the cemetery (on Pulaski Street, for example) and enlist their assistance in the protection of the resource. They should be specifically asked to call if they see any suspicious activities in the cemetery. They should also be asked to be especially vigilant during weekends and holidays.

These steps will help maximize the attention that the cemetery receives. Coupled with other recommendations offered by this study, it will further reduce the risk of significant vandalism.

We recommend that Parks, Recreation and Leisure Services develop a form designed for the reporting of cemetery-specific vandalism. This form should include several items:

- What was damaged, with specific information concerning each stone, including the name and lot/plot?
- How was the stone damaged (toppled, broken into how many fragments, scratched, etc.)?
- Where is the stone now (was the broken stone gathered up for storage, if so, where is it stored)?
- An estimate of when the damage occurred. This should routinely include the last time the stone was known to be undamaged.
- An estimate – from a conservator – of the extent of the damage and cost for repair.
- A photograph of the damaged stone.
- When police were notified.
- When police responded and took a report, with a copy of the report attached.
- The outcome of the police investigation.

It is critical that the city report each and every case of vandalism, regardless of extent, to the police. The police must be educated concerning the historical value of these stones and the financial cost of the damage to ensure that damage and vandalism is taken seriously. If the damage is recent, the police should be expected to assign crime scene investigators to collect evidence. This evidence may include shoe prints in soil or on stones, discarded beverage containers with finger prints, collection of evidence such as cigarettes, and collection of any eye witness accounts. The police should be expected to assign an investigator and this individual should be expected to treat this as a real crime deserving of real investigatory efforts.

It is also essential that vandalized stones be repaired. Simply allowing broken stones to remain where they fell is not only disrespectful, but it gives the entire cemetery a run-down and uncared for appearance. We know of no city that would allow park benches or picnic tables to remain in a park in a vandalized condition – they would be immediately repaired or replaced. Likewise, it is critical that vandalized stones be repaired by a stone conservator.

Nothing suggested here, however, is intended to take the place of routine police patrols. A police presence can be a major deterrent to cemetery-related crimes and is a critical element in cemetery crime prevention. It should be relatively easy to ensure that City Council directs the police to make routine (not occasional) patrols through the cemetery during

open hours. The more difficult issue is whether the entrance gate should be locked.

Locking the gate may deter some inappropriate activities – but it will also deter after hours police patrols. We have found that police officers will not exit their cruisers, unlock gates, make drive-throughs, and then relock gates.

Figure 29. Street lamp at the Maple Drive entrance to Mount Calvary on Pulaski Street.

Thus, for a night time police presence, we recommend that gates remain open.

Of course, it will be impossible to obtain police patrols through the cemetery until the city creates passable roads. Until that time, we recommend that nightly police patrols along Pulaski Street slow or stop, using their spotlights to search the cemetery for activities.

Patrols are crucial at night – and especially on long weekends and holidays when alcohol consumption increases. Halloween is a particularly common time for cemetery vandalism.

Cemetery Lighting

There are a number of street lamps on Pulaski Street around the exterior of the cemetery. In fact, one is found at each entrance to the cemetery complex. All are standard single arm steel brackets with cobra head luminaires mounted on existing utility poles. A typical example is found immediately before the Maple Drive entrance to the cemetery on Pulaski Street (Figure 29). There are no lights within the cemetery.

Lighting is sometimes seen as reducing vandalism. There are two problems with this approach. The first is that cemeteries were not lighted historically. Thus, the introduction of lighting detracts from the historical integrity of the properties, changing the historic fabric. The second problem is that lighting is only useful if there is someone guarding the property, using the lighting to identify problems. This is not the case in most cemeteries, including this cemetery complex.

We do not recommend that any additional lighting be installed.

Hardening Targets

Thefts in cemeteries nationwide have dramatically increased. The reasons for this are two-fold. First, there is an increasing market for gates, urns, ironwork, and statuary – created by an increase in upscale garden design and individuals willing to pay large sums for original artwork. Second, there is less attention being paid to cemetery fixtures, largely the result of decreased maintenance budgets and fewer police patrols.

Items that are targeted for theft are not common in many African American burial grounds. Fences, for example, are very rare at this complex. Statuary is non-existent. There is vernacular art, but in general these items are not usually targets of theft.

Nevertheless, having a comprehensive inventory of objects in the cemetery and their condition, will provide valuable assistance in evaluating theft and damage potential.

Fragmentary stones will be discussed in greater detail in a following section, but it is important that damage be repaired to prevent loose items from being readily available to thieves or souvenir seekers.

Recommendations

We recommend that a multifaceted approach against vandalism be taken:

- **A stone-by-stone assessment should be conducted to document all damaged or broken stones.**
- **Staff should be periodically reminded to be alert to evidence of vandalism.**
- **A friends group should be created to assist in patrolling the cemetery.**
- **Residents adjacent to the cemetery should be contacted and asked to report suspicious activities in the cemetery.**
- **The City should develop a form specifically for cemetery-related vandalism.**
- **All vandalism should be immediately reported to the police and should be thoroughly investigated.**
- **All vandalism should be repaired as soon as possible.**
- **Police patrols should be increased and made a regular, daily occurrence.**

CEMETERY FIXTURES AND FURNISHINGS

Cemetery Buildings

There are no extant buildings in the cemetery, although at least one early twentieth century plan (Figure 14) shows a caretaker's cottage in the southeast corner of Mount Calvary. There is no evidence of this building today, but this assessment did not attempt to ascertain if plots were sold in the area once the structure was (supposedly) removed. This is an important archaeological and historical question since relatively few African American burial grounds had a caretaker living on the premises.

The Boundary Fence

African American burial grounds did not often exhibit costly cast iron fencing. It was more common for an entrance gate to be erected, with the remainder of the property perhaps being fenced using woven wire.

Figure 30. Entrance gate to Mount Calvary showing the loss of letters that require replacement.

For reasons that are not entirely clear, in 1941 brick columns were erected at the entrance to Mount Calvary and then in 2000 a faux-wrought iron fence was erected. The fence is not in keeping with what would be found at most African American cemeteries and we have identified no historical account that suggests such a fence existed at the cemetery and was at some point lost.

Regardless, the fence is present today and we do not recommend replacement. At the present time it is in good condition. It should, however, be placed on a yearly maintenance schedule by Parks, Recreation and Leisure Services to include inspection for damage and touch-up paint as necessary.

In addition, the signage on the fence has been vandalized and is partially missing. This should be immediately replaced by Parks, Recreation and Leisure Services.

Although there is additional fencing elsewhere at the edge of the cemetery complex, it is primarily chain link and the fence is not contiguous. In many areas it is in poor condition.

Once the cemetery complex is consolidated under city ownership, we recommend that the approximately 3,200 feet of the cemetery boundary be fenced. This fence will exclude intruders and will also serve to eliminate cut-through pedestrians. We recommend the use of a high-security fence, primarily because such a fence will dramatically reduce long-term maintenance costs for the city.

A high security chain link fence will minimally have 2½-inch square posts; the fabric will be held with clips, not bands; it will have drive anchors for posts; and 1¼-inch 6-ga. mesh that is thermally fused vinyl coated.

Lot Amenities

Relatively few lot amenities, such as benches, trellises, or urns are present in the cemetery complex. Where present they are in deteriorated condition. In some cases this may be the result of vandalism; in other cases it is the result of natural deterioration. In some situations it is the result of improper construction.

Figure 31. This monumental bench lacked an appropriate foundation, evidencing improper construction.

Figure 31 shows a granite bench, likely erected by a monument company. The bench entirely lacks a foundation – only a few granite rocks were thrown into a shallow footing for the placement of the bench. Given the shoddy construction it is no surprise that the bench failed. This documents the types of problems that occur when there is no cemetery administration to oversee monument construction.

We recommend that once consolidated, Parks, Recreation, and Leisure Services prohibit any future placement of monuments or lot amenities.

We did not observe lot amenities such as iron benches, trellises, or urns (although some may exist). In fact, we noticed remarkably few examples of plot copings – a feature that is typically quite common in cemeteries of this type and age.

The few copings observed include cast concrete, marble or limestone, and granite. Although most were to some degree either sunken or covered by grass, they otherwise appeared in satisfactory condition. The limestone copings, however, were uniformly in poor condition.

Recommendations

Mount Calvary is reported as having had a caretaker's house. This may have left archaeological remains. Maintenance activities in the cemetery should take care to avoid damaging these remains.

Parks, Recreation and Leisure Services should place the Mount Calvary fence on a yearly maintenance schedule, inspecting it for damage and touching up paint as necessary.

Parks, Recreation and Leisure Services should immediately repair the Mount Calvary name on the entrance gate where it has been vandalized.

Once the cemetery is consolidated, it should be enclosed with a high-security chain link fence. We estimate that approximately 3,200 linear feet will be required, tying into the extant fence at the front of Mount Calvary.

Parks, Recreation and Leisure Services should prohibit any future erection of monuments or lot amenities in the cemetery.

LANDSCAPE MAINTENANCE

Maintenance Operations

As the history of the cemetery complex is revealed, maintenance has long been an issue. Even after it became common knowledge that the city owned both potter's field and Mount Calvary, Portsmouth consistently failed to provide adequate maintenance to the properties. The city called on volunteers to provide a service at the African American cemeteries that was being routinely paid for by the tax payers at the white cemeteries.

It has been only recently that Parks, Recreation and Leisure Services negotiated a contract with a local landscaping firm to provide some level of maintenance at the cemetery complex. Problems, however, remain.

The current contract does not incorporate all of the property – only that portion which was open at the time of the contract's inception. As volunteers that opened more of the cemetery the landscape firm has been under no obligation to maintain those additional areas since they are not part of the current contract. Yet without maintenance, these newly opened areas will be quickly lost again to undergrowth. While some may classify this as a "catch-22," we view it as absurd bureaucracy. All future contracts should require the selected landscape firm to maintain all of the cemetery property, not just some portions.

The current contract does not incorporate a reasonable range of maintenance tasks. In fact, only grass cutting and litter pick-up are included. During our visit we found considerable litter, suggesting that the current firm is not providing especially thorough litter control.

Moreover, it is impossible to maintain the grass if branches are not gathered up. Mowing around fallen branches is not appropriate.

We were also told that most of the work at the cemetery, because of the uneven terrain, required the use of nylon trimmers. Yet, it appears that large deck mowers are being routinely used – resulting in scalping of the grass in many areas.

Although it is convenient to attribute such deficiencies to the use of a low bid contractor, the problem actually lies in the development of the contract specifications coupled with inadequate supervision.

Chicora Foundation has for years provided a sample contract that could be readily adapted for contract specifications available at http://www.chicora.org/pdfs/Sample%20Landscape%20Maintenance%20Contract%20for%20a%20Cemetery.pdf. This document should be consulted by Parks, Recreation and Leisure Services prior to rebidding the maintenance of the cemetery.

It is also important for Parks, Recreation and Leisure Services to understand that cemeteries are scenic landscapes and in that sense similar to parks or open spaces. But they are far more; they are sacred sites, permanent collections of three-dimensional artifacts, and archives. The care they require is very different from the ordinary community park or recreation center. They demand different expertise and attention to the preservation of their historic integrity. There is far more to the maintenance of a cemetery than simply cutting the grass. We are not seeing that Parks, Recreation and Leisure Services understands the complexity of cemetery maintenance.

We typically recommend two workers and one supervisor per 10 acres on a full-time basis. This is based on the Boston Historic Burying Grounds Initiative (Atwood et al. 1989) and is particularly suitable for Portsmouth's situation

Figure 32. Examples of current maintenance problems. Top left shows lawn debris being dumped in the cemetery by adjacent neighbors. Top right shows used motor oil bottles in the cemetery. Middle left shows a beer bottle in the cemetery. Middle right shows downed limbs not collected by lawn maintenance staff. Bottom row shows the use of large deck mowers in the cemetery around stones, in rough topography, and in areas dense with coping.

since it is estimated that mowing old cemeteries with 3-dimensional monuments requires six-times the labor than modern lawn park cemeteries (Klupar 1962:239; Llewellyn 1998:100).

Appropriate maintenance established by good practice includes weed control, tree trimming, pruning, seasonal cleanup, maintaining the roads, conducting section inspections, survey of monuments for maintenance needs, maintenance of shrub beds, maintaining section signs, maintaining water lines, rehabilitation of barren areas, raking, resetting stones as needed, inspecting and repairing fences, watering newly planted areas, sodding as necessary, identification of trees for removal, removal of flowers and grave decorations, removal of wild growth, and inspection and cleaning of catch basins (see, for example, Klupar 1962:226-228). The importance of maintenance was clearly stated by West, "one thing is certain, the cemetery must be maintained in a proper manner or public confidence will suffer" (West 1917:26).

Consequently, the city must provide a staffing level that will maintain the beauty, dignity, and historical significance of this cemetery.

Table 3.
Trees Identified in the Cemetery Complex

Scientific Name	Common Name	undesirable/ invasive	significant litter	breakage	root problems
Acer spp.	maple		x	x	x
Albizia julibrissin	mimosa tree	x	x	x	x
Celtis occidentalis	hackberry		x	x	x
Liquidambar styraciflua	sweetgum		x		x
Liriodendrom tulipifera	tulip poplar		x		
Magnolia grandiflora	magnolia		x		
Pinus spp.	pine		x	x	x
Platanus occidentalis	sycamore		x		x
Prunus caroliniana	cherry laurel	x	x		
Quercus spp.	oak		x		

If the city intends to continue contracting out the maintenance of the cemetery complex, it is critical that appropriate specifications be developed following best practices for cemetery maintenance.

It is also critical that the city provide adequate supervision of the contractor. Too often work is contracted out and the contracting officer never steps foot on-site to evaluate contract performance. Had a contracting officer been on-site during any of the existing maintenance activities the trash still in the cemetery, the scalped grass, the areas not being mowed, and the problem with branches left throughout the property would have been immediately recognized – providing an opportunity for contract correction or modification.

Trees

Cemeteries, in general, have historically been dominated by large deciduous trees, although evergreens such as cedar are also very common. They provide a distinctly inviting image for visitors and passersby. These trees also provide some visual separation from adjacent buildings – especially in cluttered urban environments.

Ideally the trees selected should be historically appropriate. In the case of a planned cemetery the ideal would be to use those trees selected by the original designers – respecting their original intent and interpretation. However, we have not identified any information concerning the original plan. It is possible that many of the plantings were native and already present on the site.

Mount Calvary is only lightly wooded and Fisher's is wooded only at the edges. Mount Olive, however, is densely wooded, as are parts of the potter's field. The trees identified are shown in Table 3, as well as some of their less desirable traits, such as invasiveness, the production of significant litter, their tendency to break during storms, and the prevalence of shallow roots. Most of the trees in the cemetery today are not especially appropriate. Many will cause an increase in long-term maintenance.

In addition, as Figure 33 reveals, trees are especially dense in Mount Olive, possibly because this cemetery was abandoned prior to Mount Calvary and possibly because maintenance work always began in the front of the cemetery and often did not penetrate to the rear. In any event,

the density increases as one moves west through the cemetery complex.

We recommend the removal of all mimosa and cherry laurel trees in the cemetery because of their invasive potential.

We also recommend the removal of all trees in Mount Olive under 9-inch diameter breast height (dbh). These are very recent trees that have either self-seeded or that have been seeded by animals. The removal of these smaller trees will serve to significantly open the cemetery and perhaps aid in the drying of the soils.

We also recommend the removal of all dead or obviously diseased trees. All trees that are impinging on drainage ditches should also be removed as soon as possible.

If possible, all of these trees should be chipped on-site, with the mulch stockpiled in some area where it won't obscure monuments or be in the way of grass maintenance. This mulch should be used in areas under trees where grass is not healthy.

Figure 33. Dense trees in Mount Olive require thinning with the removal of all trees under 9-inch dbh.

Trees should be cut as close as possible to the ground surface, but stumps should *not* be ground. Instead they should be left to decay naturally since this will do far less damage to graves and monuments. It will, of course, require periodic stump infilling, but this is a relatively minor maintenance activity. Large stumps or downed wood should never be left in the cemetery, as has been the case in the past (Figure 34).

We estimate that this will remove approximately 40-50 trees from Mount Olive.

Replacement Trees

We do not foresee any immediate need to replace trees, but it is important that caregivers not allow the cemetery to become denuded. African American burial grounds were rarely treeless lawn park cemeteries. Certainly Mount Olive and Mount Calvary were never completely open.

Thus, if it becomes necessary to remove a large tree – for example, if it is hit by lightening or damaged by disease – then it is appropriate to replace that tree.

While there are many possible replacements, one that is appropriate for African American burial grounds, while at the same time, exhibits very few negative features, is the Eastern red cedar (*Juniperus virginiana*). Red cedar is an evergreen growing 40 to 50 feet tall in an oval, columnar, or pyramidal form and spreading 8 to

Figure 34. Stump left in the cemetery. All stumps and downed wood should be removed from the cemetery or chipped as quickly as possible.

15 feet when given a sunny location. It has no significant litter problem, requires little pruning, and surface roots are not generally a problem. The tree may have breakage issues so should be located where it is not likely to damage stones.

Another excellent choice, especially for the wetter areas of the cemetery, is the arborvitae or white cedar (*Thuja occidentalis*). This slow-growing tree reaches 25 to 40 feet in height and spreads to about 10 to 12 feet wide, preferring a wet or moist, rich soil. It has no litter problem, the wood is resistant to breakage, and the roots are not shallow. This is another tree that is often found in African American cemeteries.

All replacement trees should be of at least 1-inch caliper and meet the minimum requirements of the American Nursery and Landscape Association's American Standard for Nursery Stock (ANSI Z60.1-2004).

Maintenance Issues

Research is suggesting that trees, especially older mature trees, improve in health when turfgrass is removed under the branch spread and mulch is applied at a depth not exceeding 3 to 4-inches. This is a practice that could be productively employed at the cemetery complex. Staff should be closely supervised to prevent over mulching of vegetation.

It is also crucial in a cemetery context that trees be periodically inspected and pruned. We do not believe that either has occurred in the cemetery complex.

Trees should be inspected for potential threats to monuments, as well as general health. Ideally these inspections should be made yearly and after any storm where the winds exceed 55 mph. They should be pruned to remove potentially hazardous dead wood on a yearly basis, but safe pruning every 5 years by a certified arborist is acceptable. Rigging and/or a crane must be used to minimize the potential for damage to stones or the landscape. Under no circumstances are tree climbers (hooks, spikes, gaffs) to be worn while ascending, descending, or working in trees to be pruned.

There are a number of trees that require pruning for either thinning or cleaning. Thinning is a technique of pruning that removes selected branches to increase light and air movement through the crown. This also decreases weight on heavy branches. The natural shape of the tree is retained and its overall health is improved. In cleaning, the pruning removes branches that are dead, dying, diseased, crowded, broken, or otherwise defective. This includes narrow crotches.

In pruning, branches should always be cut just beyond the branch collar (an extension of the main stem) and not flush with the trunk. Large branches should be removed with three cuts to prevent tearing of the bark, which can weaken the branch and lead to disease. All pruning within the cemetery should be performed by an ISA Certified Arborist, preferably one who is also an ISA Certified Tree Worker/Climber Specialist. The ISA Certified Tree Worker/Climber Specialist has knowledge in the major aspects involved in tree care including pruning, removal, cabling and safety. These are critical skills when working among historic monuments.

Figure 35. Examples of plots or stones damaged by tree growth. The top left photo shows a large tree with roots beginning to encompass a tablet. Here it may be possible to remove the stone without damage to the tree. The top right photo shows a stone completely grown into a tree. The stone cannot be recovered without killing the tree – which we do not recommend. Middle row left photo shows coping displaced by a large tree. We recommend relocating the coping to avoid the tree. Middle row right photo shows a large tree growing into a vault. It may be possible to relocate the vault cover and tablet. Lower row left and right photos show extensive damage to coping and stones by a large tree. Here it may be possible to relocate coping and stones to avoid the tree. In most cases the tree, if mature and healthy, should be retained.

Trees should be pruned in such a manner as to preserve the natural character of the plant and in accordance with ANSI A300 (Part 1) - 2001 standards.

There are many plots in the cemetery where trees have been allowed to grow and cause extensive damage to the monuments, vaults, and graves. The solution to these problems, however, is complex since often the tree is mature and in good condition. Generally trees should not be sacrificed in order to restore a plot. Figure 35 shows several examples and outlines possible solutions. Wherever possible coping and stones should be relocated slightly to permit the growth of the tree.

Shrubbery and Ground Cover

While it is likely that the cemetery originally contained a wide variety of heirloom plants, many have likely been lost to either the shade or drastic "clean-up" efforts. Today relatively few examples remain and we identified yaupon holly (*Ilex vomitoria*), which can grow into a small tree; boxwood (*Buxus* sp.); yucca (*Yucca filamentosa*); and Confederate rose (*Hibiscus mutabilis*).

The yaupon holly was likely planted by animals and may be safely removed from most cemetery contexts. The boxwood, yucca, and Confederate rose are all intentional plantings and every effort should be made to ensure their survival.

Two ground covers (excluding turf, discussed in a following section) are also present – English ivy (*Hedera helix*) and periwinkle (*Vinca minor*). Both are considered invasive and consideration should be given to their removal from the cemetery.

English ivy is found growing on a number of trees. The plant flowers most readily when it becomes aerial – as it has at Mount Olive. Left unchecked the ivy will kill the trees it is on and we recommend immediate steps to eradicate it. This can be done by cutting out 6-12 inches of the stem close to the ground and painting the freshly cut stem with a pesticide such as Roundup Promax® used without dilution. This 47.8% glyphosate herbicide will prevent the ivy from returning (http://www.utextension.utk.edu/publications/wfiles/W231.pdf).

Periwinkle is even more difficult to eradicate and many herbicides have little effect (http://imapinvasives.org/GIST/ESA/esapages/documnts/vincmaj.pdf). Manual removal over a substantial period of time is likely the best (and most environmentally sensitive) approach.

Figure 36. Examples of invasive plants in the cemetery. On the left is flowering English ivy choking a tree. On the right is poison ivy after shedding its leaves. Both should be cut and the stems painted with undiluted Roundup Promax®.

Another ground cover worth mentioning is poison ivy (*Toxicodendron radicans*). This plant is not only invasive, but it can be hazardous to a large proportion of the population. It was observed growing aerially on several trees and should be removed in a fashion similar to English

ivy – the stems should be cut and then painted with undiluted Roundup Promax®.

It is very likely that bulbs also exist at the cemetery complex. Daffodils (*Narcissus* spp.), snowdrops (*Galanthus* spp.), and "naked ladies" (*Amaryllis belladonna*) are among the most common bulb plants found in African American cemeteries. None, however, would be obvious at the time of our assessment.

Maintenance

It is unlikely that any of the shrubs in the cemetery have received appropriate pruning or maintenance in a number of years. There is certainly no maintenance being provided under the current contract. They are, nevertheless, an important aspect of the cemetery landscape and an effort must be made to ensure their survival.

First, it is important to prevent untrained individuals from shearing shrubs. The use of shears will create a thick outer shell of foliage that shades out interior branches. This continuous shade will result in significant foliage drop, decline in health, value, and aesthetics.

Shrubs are best pruned, rather than sheared, to maintain a natural shape and to keep plants at a desired size so that they do not outgrow their landscape too quickly.

After years of neglect, many of the shrubs exhibit much deadwood on their interiors and significant rehabilitation will be necessary. Those that can be saved by careful pruning should be. Those that are dead or that cannot be rehabilitated should be removed and similar species replanted.

Thinning (cutting selected branches back to a side branch or main trunk) is usually preferred over heading back. Thinning encourages new growth within the interior portions of a shrub, reduces the size, and provides a fuller, more attractive plant.

In some cases it may be necessary to prune more severely, a process called renewal pruning, in an effort to bring the plants back into scale with their surroundings.

Renewal pruning means cutting the plants back to within 6 to 12 inches of ground level. In this instance, timing is more important than technique. The best time to prune severely is before spring growth begins. Pruning in late fall or midwinter may encourage new growth that can be injured by cold. Renewal pruning results in abundant new growth by midsummer. Once the new shoots are 6 to 12 inches long, the tips should be pruned to encourage lateral branching and a more compact shrub.

Renewal pruning works well with most broadleaf shrubs, while narrow-leaf evergreens (such as boxwood) do not respond well when severely pruned and may actually decline.

An alternative to the drastic removal of top-growth on multiple stem shrubs is to cut back all stems at ground level over a period of three years. At the first pruning, remove one-third of the old, mature stems. The following year, take out one-half of the remaining old stems and head back long shoots growing from the previous pruning cuts. At the third pruning in yet another year, remove the remaining old wood and head back the long new shoots.

In general, summer-flowering plants should be pruned before spring growth begins since these produce flowers on the current season's growth. Spring-flowering plants, such as forsythia, should be pruned after flowering since they produce flowers on the previous season's growth.

Turfgrass Issues

The cemetery complex lacks a defined type of turf and appears instead to represent a variety of grasses. Much of the cemetery, however, is dominated by broad leaf "weeds" – undesirable species that cause the grounds to look unkempt and require frequent mowing to keep them in check.

Turfgrass should be an important concern of cemeteries, although rarely is it given adequate

attention. With an appropriate turfgrass, mowing frequency is reduced. This reduces labor costs, pollution, equipment expenditures, and perhaps most importantly for historic properties, damage to the stones.

It is clear that the cemetery turf has received little attention beyond mowing. This has lead to an overall decline in appearance and an increase in maintenance costs.

Mowing and Trimming

Mowing at the cemetery is conducted by at least two mowers, a Toro Zero-Turn Riding mower with at least a 48-inch deck and a Hustler zero-turn commercial riding mower, also with a 48-inch deck (see Figure 32).

Although these deck sizes are at the low end of commercial equipment, the use of riding or large walk behind mowers can be problematical, especially in a setting such as Mount Calvary and Mount Olive where monuments and coping present significant obstacles. Stones in the cemetery clearly reveal the damage that can be done by large equipment and less than perfect handling (see Figure 37).

Figure 37. Damage to stones in the cemetery caused by mowers. Top photo shows numerous direct hits causing chipping. Bottom photo shows not only a direct hit on the left, but also a long scrape across the stone. These are the result of using equipment that is too large for cemetery, coupled with inattentive and unsupervised workers.

It would be far better to abandon riding mowers and convert mowing at the cemetery complex to the use of walk behind mowers with decks no larger than 21-inches. Larger mowers could be used in those areas with few or no stones – such as the potter's field, rear portion of Mount Olive, and Fisher's.

All mowers operating in the cemetery complex should have closed cell foam bumpers installed to assist in preventing damage to the stones. This should be part of the city's contract for work in the cemetery. In addition, the city should periodically inspect the condition of the stones to ensure that no additional damage is being done during maintenance activities.

In addition to mowing, nylon trimmers are used in some areas around monuments, coping, fencing, and plantings. This is an acceptable practice, but it is critical that a very light weight line be used – along with worker attention – to minimize damage to soft stone such as marble. The maximum line diameter for use in the cemetery should be 0.065-inch. Thicker lines will cause unnecessary damage to the stones.

The Parks and Recreation Department reports that mowing is being conducted during the growing season every two weeks. This is a fairly general policy used by many cemeteries and it is generally satisfactory.

Fertilization, Weed Control, and Renovation

It is reported that the city does not conduct any fertilization, pre-emergent, or post-emergent control of weeds in the cemetery. Since there is no established turf, this is understandable. It is not, however, good long-term practice and it would benefit the city if the cemetery – or at least some parts – were established in a turf grass. The presence of a healthy turf would reduce mowing costs, especially if a slow growing, tall grass were used.

The city may wish to explore some alternative grasses. One worth considering is Buffalograss (*Buchloe dactyloides*). While this grass doesn't hold up to traffic well, we anticipate little traffic over much of the cemetery. It does withstand drought and mowing requirements are infrequent; once a month is sufficient, once a year for a naturalistic landscape. This may be worth considering in the open areas of Fisher's and potter's field.

Another grass with potential is seashore paspalum (*Paspalum vaginatum*). It is a warm season perennial grass that grows well in areas that receive extended periods of heavy rains and low light intensity. Its dense growth discourages weeds.

One or more alternative grasses should be planted in the cemetery to replace the current weedy vegetation. A renovation program would allow the city to tackle the replacement of existing grass using a phased approach. A publication to assist in this process can be found at http://www.ca.uky.edu/agc/pubs/agr/agr51/agr51.pdf.

Once a defined turf is established there will be greater incentive to conduct soil tests, apply appropriate fertilization, practice good weed control, and properly aerate the soils.

Virginia Tech will provide soil tests, including organic matter, for only $14 (http://www.soiltest.vt.edu/soiltest.html) – a very reasonable fee that is well within the city's budget.

Documents such as Virginia Tech's *Simple Lawn Care Schedule* (available at http://www.pwcgov.org/docLibrary/PDF/006790.pdf) provide excellent advice on establishing a maintenance schedule.

In order to minimize salt uptake by the stones, slow release organic fertilizers are preferable to commercial inorganic fertilizers. An excellent source explaining the differences between organic and inorganic fertilizers is http://www.cmg.colostate.edu/gardennotes/234.pdf. The publication at http://pubs.caes.uga.edu/caespubs/pubs/PDF/C853.pdf provides information on converting traditional inorganic fertilizer recommendations to safer organic recipes.

Other Landscape Issues

We have previously indicated that the contractor must do a better job collecting litter in the cemetery. In addition, the city must amend the contract to require that all downed branches be collected at least once every month.

The cemetery will exhibit a large number of leaves during the fall season. While some cemeteries attempt to rake and remove leaves, there are more cost effective approaches. For example, many cemeteries today are using micro-mulch mower blades and simply mulching leaves during the mowing process. For example, some blades have jagged teeth instead of a traditional-looking cutting edge. Others have multiple cutting edges. Many mulching mowers employ kickers or tails that force blades upward for repeated chopping. Examples of commercial mulching mowers include the Toro 21" Heavy Duty models, Snapper Pro with their Ninja blade, and the Honda HRC Commercial mowers. All get very high ratings from professional users.

This approach not only eliminates the work of gathering and removing leaves, but it also

adds nutrients back into the soil. For example, at Spring Grove Cemetery and Arboretum in Cincinnati, Ohio, the 430 acres have leaves blown away from markers and flower beds, then mulch them with riding mowers.

Recommendations

The city must develop appropriate specifications for the maintenance of the cemetery. Examples of best maintenance practices are available on the Chicora website. The city must also exercise greater control over their landscape contractor, visiting the cemetery, before, during, and after operations to ensure that appropriate work is being done.

All mimosa and cherry laurel trees in the cemetery should be removed as soon as possible. So, too, should all diseased or dead trees. We also recommend that all trees in Mount Olive under 9-inch dbh be removed.

Trees should be chipped on-site and the mulch stored for use in the cemetery. Stumps should be cut as close as possible to the ground, but should not be ground.

Appropriate trees for replanting include Eastern red cedar and white cedar. All replacement trees should be of at least 1-inch caliper and meet the minimum requirements of the American Nursery and Landscape Association's American Standard for Nursery Stock (ANSI Z60.1-2004). Nursery stock should be carefully inspected and specimens with wounds, crooked or double leaders, broken branches, or girdling roots should be rejected.

All trees should be inspected yearly and after any storm with winds in excess of 55 mph. These inspections should be conducted by an ISA certified arborist

The cemetery evidences trees that require pruning for thinning or cleaning. These issues should be dealt with immediately. If the city does not have adequate staff to permit the level of care necessary, then a contract should be awarded to an ISA Certified Arborist for the work.

English ivy, poison ivy, and periwinkle in the cemetery should be eradicated. English and poison ivy should be cut from trees and their stems painted with an herbicide. Periwinkle should be manually removed wherever possible.

Shrubbery is not common, but much of what remains is in poor condition. Much of the shrubbery requires renewal pruning. We recommend that if the city cannot devote trained staff to care for these issues that they let a contract specific for the renewal and rehabilitation of the shrubbery.

The use of large deck mowers in the cemetery is causing damage to monuments and the practice must be stopped. Only 21-inch walk-behind mowers should be used on the cemetery grounds. All mowers should be fitted with closed cell foam bumpers to reduce accidental damage to the stones. These bumpers should be inspected on a weekly basis and replaced as needed.

The nylon trimmer line being used in the cemetery must not have over 0.065-inch line. There is damage to monuments suggesting that a heavier line is being used or has been used in the past.

We recommend a gradual program of turf renovation until sustainable stands of a single turf are achieved. The city may wish to explore the use of alternative turfs such as buffalo grass or seashore paspalum.

With the establishment of a good turf, soil analysis should be conducted every five years to determine if adjustments are necessary for the turfgrass. Where fertilization is needed, only organic, slow release fertilizers should be used in order to minimize salt damage to the stones.

Limited pre-emergent and post-emergent weed control should be instituted at the cemetery, taking care to avoid stones. The herbicides will affect the stones and this work will need to be very carefully done to ensure

that the stones are not damaged. However, a better stand of turf will reduce the overall maintenance cost of mowing.
Mowers with mulching blades should be used to allow leaves to be mulched on-site.

OTHER MAINTENANCE ISSUES

Signage

The city's 2006 10-year master plan does not recommend additional signage for the Mount Calvary, Mount Olive, Fisher's, and potter's field cemeteries. This is an error.

The cemetery lacks effective signage. During our assessment the only signage we observed was the vandalized sign on the entrance gate. There are no directional signs to the cemetery; once at the cemetery there is no signage of any nature concerning rules, historic significance, or other details. Thus, the city is failing to take advantage of a unique heritage tourism opportunity.

From a cemetery preservation perspective, signage is of four basic types: identification, regulatory, informational, and interpretative. They are generally recommended in this same priority.

Identification signage might include the name of the cemetery and might also include the cemetery's date of founding and historic significance (i.e., eligible for listing on the National Register).

While the iron entrance gate provides a name and the brick column provides two plaques with confusing information (one reads "Mount Calvary Cemetery 1941" with no explanation of the date and the other reads "Mount Olive Cemetery at Fisher's Hill" with no explanation of how the different cemeteries relate to one another). In addition, this sign is useful only once one is already at the cemetery. The city should consider additional signage directing visitors to the cemetery.

Regulatory signage specifies laws, regulations, or expected standards of behavior. We recommend that the city develop signage dealing with, minimally, these issues (perhaps with some modifications of language as might be needed):

- The cemetery is open from 8am to 5pm. Any individual in the cemetery at other times is subject to arrest for trespass.
- Many of the stones in this cemetery are very old and may be easily damaged. Consequently, absolutely no gravestone rubbings will be allowed.
- The stones and monuments in this cemetery are fragile. Please refrain from leaning, sitting, or climbing on any monument or mausoleum. All children must be escorted by an adult.
- Absolutely no alcoholic beverages, fireworks, or fire arms are allowed in the cemetery. Proper conduct is expected at all times.
- No pets are allowed in the cemetery.
- Flowers will be removed by the staff 10 days after holidays or when the arrangements become wilted and unsightly.
- No plantings are allowed within the cemetery and the City will enforce its right to remove any plantings deemed inappropriate, diseased, or damaging the cemetery.
- For additional information concerning maintenance issues, please contact the City of Portsmouth Parks, Recreation and Leisure Services Department at _____. In case of emergency contact _____.

The last two types of signage are informational (for example, directional signs) and interpretative (information on historic people buried in the cemetery).

There is currently no informational or interpretative signage at the site. At this time the only such signage we recommend is a Virginia Historical Highway Marker for the cemetery complex. Additional information on this program is available online at http://www.dhr.virginia.gov/hiway_markers/hwmarker_info.htm. This is a project that should be funded by the City with input from this report and other caregivers. The sign should seek to briefly explain the different cemeteries and the importance of the property to the community.

Other Public Outreach

We have found no meaningful interpretative information for the cemetery. It is not mentioned in the "Portsmouth – Virginia's quaint, historic seaport" brochure. Nor have we found any mention of the cemetery anywhere in the city's web site. There is no mention under the Parks, Recreation and Leisure Services web page; no mention under museums; and no mention under tourism (although the white cemetery, Cedar Grove, is briefly mentioned).

This might lead to the impression that the cemetery is little more than an afterthought to the department, rather than an important historical resource. The City should correct this by prominently identifying the site in the web site, including historical information, and including cemetery specific regulations. The web site should also be a focus point for preservation efforts, including documents such as this assessment, as well as eventual conservation information.

We found a similar lack of farsightedness in the city's *Destination 2025* plan. Although the vision statement speaks to "a sense of place" with a rich history, the plan does not discuss that history. Even the observation that the, "city's rich history can contribute to the local economy through heritage tourism" seems to inspire little enthusiasm. There is no mention of cemeteries in the entire document and the role of African Americans is entirely overlooked.

We found no mention of the cemetery in the African American Heritage website sponsored by the Virginia Foundation for the Humanities. Nor is there any mention on the state's tourism website, including the page specifically designed to search for African American heritage sites (http://www.virginia.org/site/content.asp?MGrp=1&MCat=2&MItm=39).

The integration of the cemetery into web sites requires only imagination and a few hours of staff time. In addition, it would be appropriate to develop a brochure for the cemetery that would address the history of the different tracts, provide a map showing the cemetery, identify the rules and regulations for visitors, and explain why the resource is significant in Portsmouth's history.

Trash

We have previously pointed out that the current maintenance contract, while calling for the collection of trash in the cemetery, is not being effectively monitored. Trash is present in the cemetery complex and a greater effort should be made to ensure that it is collected at least monthly.

Similarly, we have emphasized the need to broadly define trash as not only refuse or garbage, but also downed limbs. These, too, must be picked up and removed to permit proper mowing and maintenance activities.

Modifications to the Terrain

The long use of the burial ground, often without use of vaults, coupled with the wet soils, have created a topography that collects water, presents significant hazards to the public, and has resulted in excessive displacement of stones. The uneven topography also makes maintenance more difficult and is certainly driving up the cost of mowing and other turf issues.

Correction of this problem is not, however, as simple as it might at first appear.

Figure 38. Undulating topography is a clear indication of sunken graves. All of these require mapping prior to being infilled with clean sand.

The grave depressions found throughout the cemetery should not be filled in until their location is recorded on a site plan. The depressions provide clear evidence of graves that cannot be otherwise documented. Filling in these graves without mapping would result in the loss of this critical information.

Thus, the first step must be to create a detailed map of the approximately 11 acre complex. This map would include roads, plots, trees and other vegetation, stones and monuments, and grave depressions. This might be done most easily using a total station; GPS would be less reliable since much of the cemetery is under dense tree cover. We estimate that the work would require a survey team about 6 weeks.

Once a map is completed, it would be possible to begin leveling different sections of the cemetery. This work would involve bringing in sand and backfilling grave depressions. The ideal places to begin are those with few or no stones, such as potter's field, the west end of Mount Olive, and Fisher's.

The process of backfilling graves must be conducted by hand in order to avoid additional damage to the landscape. Truck loads of clean sand could be deposited in grave depressions using compact tracked loaders perhaps combined with mini track loaders or muck trucks (powered wheelbarrows).

It is during this work that large open areas of the cemetery could be easily prepared for reseeding or resodding.

Relatively quickly, however, open areas would be eliminated, leaving the far more complex site areas requiring work. In these locations the work would necessarily progress from plot to plot. In each plot an assessment would be required regarding the need to reset coping, reset ledgers

Figure 39. Sunken graves can be infilled with sand once they have been mapped.

and monuments, and possibly infill broken or open vaults.

Making topographic corrections by plot would allow the process to be phased and would also avoid the problem of topographic corrections in one area not necessarily being equal to those required in a different section.

This process, however, would allow for the filling of low spots and might improve the overall drainage of the cemetery, especially if it is coordinated with the cleaning and grading of ditches as previously recommended.

Recommendations

Parks, Recreation and Leisure Services should develop better road signage to identify the location of the cemetery. If possible this signage should conform to a consistent tourist or historical site format for the entire city.

Regulatory signage is critical at the entrance to the cemetery. It should minimally deal with proper care of the monuments, prohibiting rubbings and warning visitors of their fragile condition; it should clearly state the hours the cemetery is open; it should prohibit certain behaviors and actions, such as use of alcoholic beverages; it should establish simple guidelines for plantings, as well as the placement and removal of floral and grave decorations; and it should include contact and emergency information.

There is no interpretative signage or widely available brochure. Both could be used at the cemetery to encourage more effective use of the facility and help ensure its preservation. Development of a brochure is relatively cost effective and should represent an immediate action, followed by on-site signage as funding allows. The brochure should include more information on the cemetery landscape, stone carvers, funerary customs, and reasons that a visitor should be interested in the individuals buried in the cemetery, as well as providing the cemetery regulations.

The city should fund a Virginia Historical Highway Marker for the cemetery.

The city's Parks and Recreation website provides no information concerning the cemetery, its history, landscape, care, or regulations. The city is missing an exceptional opportunity to engage an increasingly web savvy public in the cemetery's care and preservation. The addition of genealogical information could also be of immense interest to historians and family researchers. The city could also better promote the cemetery as a tourism resource.

Trash is a problem in the cemetery and greater attention should be devoted to that issue by the contracted maintenance firm. Trash should be expanded to include all downed limbs that would hinder complete and professional lawn maintenance.

A phased approach should be instituted to restore the topography and terrain of the cemetery. The first phase involves the mapping of the cemetery, including grave depressions, plots, monuments, roads, and vegetation. Once mapping is complete broad areas of sunken graves should be infilled. This would be the perfect opportunity to reseed or resod that particular area of the cemetery. Subsequently, individual plots should be restored, with graves filled or recapped, coping and extant monuments should be appropriately reset.

CONSERVATION ISSUES

What is Conservation?

Conservation is *not* restoration. Restoration means, very simply, making something "like new." Restoration implies dramatic changes of the historic fabric, including the elimination of fabric that does not "fit" the current "restoration plan." Restoration is inherently destructive of patina and what makes a property historic in the first place. The "restorer" of a property will know nothing of the Secretary of the Interior's Standards for Preservation and care even less.

One of the most important early writings was that of nineteenth century art critic and observer John Ruskin. In *The Seven Lamps of Architecture* published in 1849 and in particular, "The Lamp of Memory," Ruskin introduces us to the issue of trusteeship where he explains,

> it is again no question of expediency or feeling whether we shall preserve the buildings of past times or not. We have no right whatever to touch them. They are not ours. They belong partly to those who built them, and partly to all the generations of mankind who are to follow us.

Ruskin also crisply stated the difference between restoration and repair, noting that "restoration" means,

> the most total destruction which a building can suffer: a destruction out of which no remnants can be gathered: a destruction accompanied with false description of the thing destroyed.

In contrast, conservation can be defined as preservation from loss, depletion, waste, or harm. Conservation seeks to limit natural deterioration.

Conservation will respect the historic fabric, examine the variety of options available, and select those that pose the least potential threat to the property. Conservation will ensure complete documentation, whether it is of cleaning, painting, or repair. Conservation will ensure that the work done today does not affect our ability to treat the object tomorrow.[1]

Standard for Conservation Work

The Town of Portsmouth is the steward of this cemetery, holding what belonged to past generations in trust for future generations. As such the city bears a great responsibility for ensuring that no harm comes to the property during its watch.

One way to ensure the long-term preservation of this property is to ensure that all work meets or exceeds the Secretary of the Interior's Standards for Preservation, discussed on pages 3-4 of this study.

Another critical requirement is that the city ensure that any work performed in the cemetery – whether it involves the repair of iron work, the cleaning of a stone, or the reconstruction of a heavily damaged monument,

[1] Readers may question previous recommendations to, for example, "restore" the topography. In some cases restoration is necessary for the long-term – and cost-effective – survival of the historic property. Even this landscape "restoration," however, is coupled with careful recordation of the existing conditions to ensure that grave locations are not lost. We also advocate every possible effort to replace monuments as they were originally – again to ensure the preservation of the historic fabric.

be conducted by a trained conservator who subscribes to the Standards of Practice and Code of Ethics of the American Institute for Conservation of Historic and Artistic Works (AIC).

These Standards cover such issues as:

- Do no harm.
- Respect the original fabric and retain as much as possible – don't replace it needlessly.
- Choose the gentlest and least invasive methods possible.
- Is the treatment reversible? Is retreatment possible?
- Don't use a chemical without understanding its affect on the object and future treatments.
- Don't falsify the object by using designs or materials that imply the artifact is older than it is.
- Replication and repairs should be identified as modern so that future researchers are not misled.
- Use methods and materials that do not impede future investigation.
- Document all conservation activities – and ensure that documentation is available.
- Use preventative methods whenever possible – be proactive, not reactive.

The AIC Code of Conduct also requires a professional conservator provide clients with a written, detailed treatment proposal prior to undertaking any repairs; once repairs or treatments are completed, the conservator must provide the client with a written, detailed treatment report that specifies precisely what was done and the materials used. The conservator must ensure the suitability of materials and methods – judging and evaluating the multitude of possible treatment options to arrive at the best recommendation for a particular object.

General Types of Stone Damage

Although a stone-by-stone assessment of damaged monuments was not included in this assessment – one is recommended – this section will provide some general observations concerning the types of problems faced by the cemetery complex.

Broken Stones

There are numerous examples of broken stones. Many of these stones should receive a high priority for conservation treatments since the stones are on the ground and subject to additional damage, increasing the eventual cost of appropriate repair. Stones on the ground are walked on, may have mowers run over them, and if they are marble are subject to greater acid rain damage. It is always critical to erect fallen stones.

Conducting a stone-by-stone assessment will result in proposed treatment recommendations, complete with a project cost and a repair priority for each broken stone. This will allow the city and/or caregivers to develop a reasonable budget for this conservation work. In most cases gravestones are fragile and their repair is delicate work. There are many commercial products on the market used by many commercial stone companies, which are inappropriate for (and often damaging to) historic stone.

Appropriate conservation treatment will usually involve drilling and pinning, carefully aligning the two fragments. Fiberglass (or occasionally threaded 316 stainless steel rod) and epoxy adhesives formulated for the specific stone are used in this type of repair. Diameters and lengths of pins vary with the individual application, depending on the nature of the break, the thickness of the stone, its condition, and its expected post-repair treatment.

Sometimes pins are not used in a misguided or misinformed effort to save time and money. Instead the pieces are simply joined using a continuous bead of epoxy or some other adhesive. Experience indicates that for a long-lasting repair, particularly in structural applications, use of pins is necessary. Moreover, most adhesives are far stronger than the stone itself, meaning that failure of the repair is likely to cause additional damage to the stone.

Figure 40. Types of stone damage at the cemetery complex. Upper left is a cast Portland cement stone that has broken and is cracked. This stone may be treated using a simple epoxy repair. Upper right is a thin marble headstone that has broken. This is an example of a stone that will require a blind pin repair using fiberglass rods. Middle left is a Portland cement ledger that has shattered. Careful inspection reveals one was laid over a pre-existing ledger (which has also shattered). This will be a very complex repair, requiring that each fragment be pieced back together. Middle right is a broken marble stone, also a candidate for a blind pin repair. Lower left is a stone with two ferrous pins. These pins must be removed and replaced with stainless steel; the stone can then be reset. Lower right shows two stones with ferrous pins. They require the replacement of the ferrous pins, as well as the removal of the thick cement coating that was used.

Figure 41. Damaged stones in the cemetery complex. Upper left, fallen stone that has become partially buried. This stone requires resetting. Upper right, collapsing ledger. This ledger requires releveling with the slant top marker at the head being reset. Middle left, probable vandalized stone. Resetting may require replacement of ferrous pins. Middle right shows a toppled pedestal tomb that should be reset. Stainless steel pins should be inserted to prevent future vandalism. Lower left, displaced military stone. Although the grave location has been lost, the stone should be reset as a memorial with notes made that it may no longer identify the grave location. Lower right, example of a severely leaning obelisk that requires immediate resetting because of the hazard to the public.

Ferrous Pins

Several stones were observed with ferrous pins and these should be given a high treatment priority since, left untreated, the corrosion will cause significant spalling, cracking, and breakage of the stones. In these cases it will be necessary to use diamond core drills to remove the ferrous pins. They will then need to be replaced with fiberglass or stainless steel pins.

After any such repairs it will be necessary to fill the voids with a natural cementitious composite stone material resembling the original stone as closely as possible in texture, color, porosity, and strength. This type of repair may be used to fill gaps or losses in marble and is often used to help slow the spalling of other stones.

Under no circumstances should latex or acrylic modified materials be used in composite stone repair. These additives may help the workability of the product, but they have the potential to cause long-term problems. Such products are not appropriately matched in terms of strength or vapor permeability.

More suitable materials include Jahn (distributed by Cathedral Stone) or the lime-based mortars of U.S. Heritage. These closely resemble the natural strength of the original stone, contain no synthetic polymers, exhibit good adhesion, and can be color matched if necessary.

All infill work should be conducted by a trained conservator. The Jahn products, in fact, require certification in their use through Cathedral Stone.

Tilting and Simple Resets

Throughout the cemetery we observed seriously leaning stones. Some are headstones; others are set on various bases. When this occurs to headstones, the tilt may be sufficient to precipitate a ground break, dramatically increasing the cost of repair. For other monuments the tilt may be sufficient to cause the monument to fail and, in the process, there may be additional damage, or it may fall on a cemetery visitor.

Monuments should never be reset using concrete, but rather should be set in pea gravel. This approach allows the stone some movement should it be accidentally impacted by lawn maintenance activities. The pea gravel will also promote drainage away from the stone, helping the stone resist the uptake of soluble salts.

Resetting of a low stone on a base requires that the base first be leveled, again using pea gravel. Afterwards the stone can be reset using a high lime mortar, typically a 1:2.5 mix of NHL 3.5 and sand. This mix should be relatively dry to prevent staining the base and all excess mortar should be cleaned off immediately.

There are many ledgers that are tilted. These should also be reset (where it is possible to do so without major plot resculpting). Often sand, decomposed granite, or pea gravel is sufficient to level such stones.

While resetting can be done by a conservator, it is a task that volunteers can readily perform, at least for smaller stones. The exception are larger stones that require drilling and pinning for stability.

Collapsed Vaults

There are many examples of collapsed or partially exposed vaults in the cemetery complex. They are typically filled with stagnant water. These require immediate attention. Several options will be provided below for different types of situations.

In any case where water has penetrated into the vault (typically because the cover itself is compromised), the first step should be to pump dry the interior of the vault. This will require a trash centrifugal pump. These are generally at least 2-inch with a flow of at least 200 gpm. Given the small size of the vaults (most will contain around 150 gallons of water at most), a smaller pump would work fine. It is important that the suction hose have a fine strainer in order to prevent the loss of remains that may be found in the bottom of the vault.

In many cases what appears to be a ledger is actually a vault cover. The cover is tilted in the soil and this may indicate that the vault itself has sunk. Releveling the vault would require that the body itself be removed. A better approach is to remove the ledger, add and level wood forms to the sides of the vault, allowing additional fiber-reinforced Portland cement to be poured, leveling the vault to grade. The ledger can then be reset.

Figure 42. Examples of damaged (or lost) vault tops that should be replaced with new cast concrete slabs.

Some vaults tops have sustained so much damage that repair is not feasible. These may be replaced with new, pre-fabricated concrete slabs. These slabs can be constructed on-site using pre-mixed concrete poured in forms. We recommend using a minimum of a 4000 psi mix with the addition of glass fibers in the mix. We also recommend 5 to 7% air entrainment to assist in preventing freeze-thaw damage and a slump no greater than 4-inches. The ledger tops should be a minimum of 4-inches thick with the addition of 4x4-inch welded wire mesh reinforcement carefully set in the middle. These new tops can be cast on-site, using wood forms laid over poly sheeting. They may even be cast on top of existing vaults in some situations. Remnants of existing vault tops can be placed within the vault, then covered with the new vault top.

Displaced Stones

Throughout the cemetery we observed displaced or orphan stones. These are stones – or fragments of stones – that are no longer clearly associated with a specific grave. They are often found leaning against other stones or trees, or sometimes flat on the ground (typical of a fallen stone). At present there appears to be no procedure to ensure that damaged stones are identified and cared for. In most cases it appears that broken stones have been left lying where they fell – this is irresponsible management that endangers the stones and shows disrespect for both the monument and the individual buried in the cemetery.

Every cemetery must develop some mechanism to care for these stones, protecting them from additional loss or damage. Repairing damaged stones is the surest way to protect them, but in many cases fragments can be provided temporary storage until funding is available for repair. Temporary storage should be in a dry, secured facility. Individual items must be marked with information concerning where they were found. One solution would be to mark the location on a map and include that map with the stored stones (Ben Meadows "Rite-in-the-Rain" Copier Paper # 145110). Another approach is to use

Table 4.
Comparison of Different Cleaning Techniques

Cleaning Technique	Potential Harm to Stone	Health/Safety Issues
Sand Blasting	Erodes stone; highly abrasive; will destroy detail and lettering over time.	Exposure to marble dust is a source of the fatal lung disease silicosis.
Pressure Washers	High pressure abrades stone. This can be exacerbated by inexperienced users. Pressures should not exceed 90 psi.	None, unless chemicals are added or high temperature water is used.
Acid Cleaning	Creates an unnatural surface on the stone; deposits iron compounds that will stain the stone; deposits soluble salts that damage the stone.	Acids are highly corrosive, requiring personal protective equipment under mandatory OSHA laws; may kill grass and surrounding vegetation.
Sodium Hypochlorite & Calcium Hypochlorite (household and swimming pool bleach)	Will form soluble salts, which will reappear as whitish efflorescence; can cause yellowing; some salts are acidic.	Respiratory irritant; can cause eye injury; strong oxidizer; can decompose to hazardous gasses.
Hydrogen Peroxide	Often causes distinctive reddish discolorations; will etch polished marble and limestone.	Severe skin and eye irritant.
Ammonium Hydroxide	Repeated use may lead to discoloration through precipitation of hydroxides.	Respiratory, skin, and eye irritant.
D/2 Architectural Antimicrobial	No known adverse effects, has been in use for nearly 10 years.	No special precautions required for use, handling, or storage.

aluminum tags (Ben Meadows Aluma-Boss 9" Aluminum Wire Tags # 152428) secured to the stone fragments using nylon string.

Whatever technique is used, it should ensure the preservation of the stones, as well as ensuring that the stones can be correctly replaced in the cemetery once repaired.

It is important for us to emphasize that collection and storage of stones is not an alternative to appropriate repair. If broken stones are only removed and "stored," eventually the cemetery will become denuded and its historic context and integrity will be lost forever.

Cleaning of Monuments

A significant amount of damage may result from inappropriate cleaning techniques. The most common cleaning technique is the use of a bleach product – probably because bleach (either sodium hypochlorite or calcium hypochlorite) is widely available and inexpensive. It is, nevertheless, unacceptable for historic monuments since it creates an artificially white marble and, over time, will cause erosion and yellowing of the stone.

Table 4 discusses problems with a variety of "common" stone cleaning processes widely used by commercial firms and the public. Providing this sort of information to families who have loved ones buried at the cemetery may help deter abusive cleaning.

Cleaning is largely an aesthetic issue, and we observed very few situations in the cemetery complex where cleaning would be considered a high priority.

Cast Stone Monuments

All African American cemeteries exhibit a broad range of cast stone monuments, typically created using a low-aggregate or sandy mix of Portland cement. These monuments were offered by funeral homes, vault companies, and were created by individual families. The fluid nature of Portland cement offered considerable options in the creation of vernacular monuments. Many of the monuments were whitewashed, giving them the final appearance of more expensive marble.

Some of these monuments had industrial letters pressed into the wet mix. Others were hand labeled. In some cases other items were added as decoration, such as colored glass or tiles. The

Figure 43. Examples of cast stone (Portland cement) monuments. These examples show a variety of designs, cast inscriptions, inclusions, and use of whitewash.

Mingo Plot in Mount Olive shows the use of porcelain insulators and door knobs.

These are especially important monuments since they exhibit the intent and variability of individual families and artisans. While their repair does at times require additional effort and cost, special care should be taken to prevent these monuments from being discarded.

Ironwork Conservation

We found little ironwork remaining in the cemeteries. One plot revealed remnant fragments of a decorative iron fence and another plot showed the use of gas pipe set in concrete. There were likely other examples that have been stolen over the years.

Given the relatively low incidence of iron, we will only briefly outline some of the more critical preservation issues.

Every effort should be made to retain all existing ironwork, regardless of condition. Replacement with new materials is not only aesthetically inappropriate, but often causes galvanic reactions between dissimilar metals. When some of the existing ironwork is incomplete, a reasonable preservation solution is to repair and maintain the remaining work rather than add historically inappropriate and incorrect substitutes. If replacement is desired, salvage of matching elements is preferred over recasting. Replication is typically not an appropriate choice since it is by far the most expensive course of action, and is often done poorly.

The single best protection of ironwork is maintenance — and this revolves around painting. A generally useful approach involves minimal cleaning, followed by a coat of rust converter and two top coats of a flat or semi-gloss alkyd paint. Where a coating is still present it is usually

Figure 44. Examples of ironwork in the cemetery complex. Upper photo shows a remnant portion of a "hairpin" section. Middle photo shows a remnant corner post. Lower photo shows a gas pipe fence set in low concrete posts.

necessary to remove this paint to near white metal in order to prime and paint successfully.

While welding may be appropriate in some cases, once welded, pieces are no longer able to move with expansion/contraction cycles, and this may cause internal stresses that leading to yet additional structural problems.

In addition, while wrought iron is easy to weld because of its low carbon content, cast iron contains up to 4% carbon and is difficult to weld. Welding on cast iron should be done only by firms specializing in this work and capable of preheating the elements.

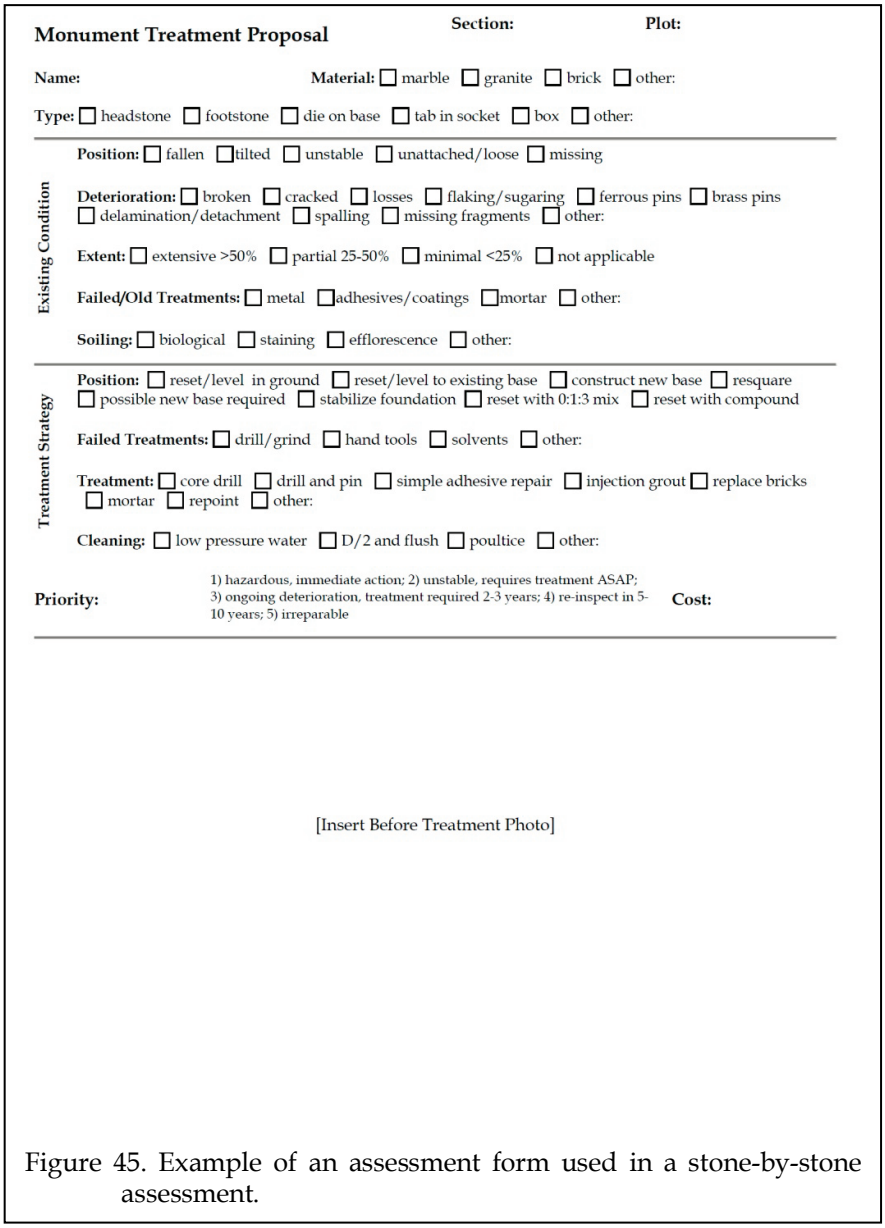
When used, welds should be continuous and ground smooth, in order to eliminate any gaps or crevices. When finished, it should be difficult to distinguish the weld — the original metal should blend or flow directly into the reattached part.

Stone-by-Stone Assessment

We strongly recommend that the cemetery receive a stone-by-stone assessment. This would involve the examination of every stone for conservation treatment needs by trained conservators. Routine during such an assessment is the photography of all stones requiring treatment.

Each assessment would complete a form specific for the stone requiring treatment that identifies the treatment necessary, provides a cost estimate of the needed work, and prioritizes the work.

This would result in the caregivers having a complete list of all stones needing some sort of conservation treatment, as well as a budget that could be used for fund raising efforts. This represents a critical second step (this assessment is the first) in establishing clear preservation priorities for Portsmouth's African American burial



Monument Treatment Proposal **Section:** **Plot:**

Name: **Material:** ☐ marble ☐ granite ☐ brick ☐ other:

Type: ☐ headstone ☐ footstone ☐ die on base ☐ tab in socket ☐ box ☐ other:

Existing Condition

Position: ☐ fallen ☐ tilted ☐ unstable ☐ unattached/loose ☐ missing

Deterioration: ☐ broken ☐ cracked ☐ losses ☐ flaking/sugaring ☐ ferrous pins ☐ brass pins ☐ delamination/detachment ☐ spalling ☐ missing fragments ☐ other:

Extent: ☐ extensive >50% ☐ partial 25-50% ☐ minimal <25% ☐ not applicable

Failed/Old Treatments: ☐ metal ☐ adhesives/coatings ☐ mortar ☐ other:

Soiling: ☐ biological ☐ staining ☐ efflorescence ☐ other:

Treatment Strategy

Position: ☐ reset/level in ground ☐ reset/level to existing base ☐ construct new base ☐ resquare ☐ possible new base required ☐ stabilize foundation ☐ reset with 0:1:3 mix ☐ reset with compound

Failed Treatments: ☐ drill/grind ☐ hand tools ☐ solvents ☐ other:

Treatment: ☐ core drill ☐ drill and pin ☐ simple adhesive repair ☐ injection grout ☐ replace bricks ☐ mortar ☐ repoint ☐ other:

Cleaning: ☐ low pressure water ☐ D/2 and flush ☐ poultice ☐ other:

Priority: 1) hazardous, immediate action; 2) unstable, requires treatment ASAP; 3) ongoing deterioration, treatment required 2-3 years; 4) re-inspect in 5-10 years; 5) irreparable **Cost:**

[Insert Before Treatment Photo]

Figure 45. Example of an assessment form used in a stone-by-stone assessment.

grounds.

The stone-by-stone assessment would also create a rather large photographic database of the cemetery. Although all notes would not be recorded, a very large proportion would be.

Recommendations

All work in the cemetery should be conducted by trained conservators who subscribe to the Code of Ethics and Standards of Practice of the American Institute for Conservation of Historic and Artistic Works (AIC). This should be the minimum level of competency required by the city on all projects.

There are some treatments, such as resetting, that can be undertaken by volunteers or city staff with training and oversight. The town, however, should not attempt repairs beyond the skill level of the individuals available.

The city should strictly limit replacement of historic fabric and require that all such modifications receive approval.

Cleaning is necessary of those monuments exhibiting heavy lichen growth obscuring the inscription. This cleaning may be done by town staff as long as it is conducted in a manner that does not endanger the stone or eliminate the stone's patina. We recommend the use of D/2 Biological Solution and soft scrub brushes. Pressure washers must NOT be used.

A stone-by-stone assessment of the cemetery complex should be undertaken as soon as possible since this will identify stones requiring conservation treatment and document current conditions.

PRIORITIES AND FUNDING LEVELS

Recommended Priorities

Table 5 lists the recommendations offered throughout this assessment, classifying them as a *first, second, or third priority*.

First priorities are those we recommend undertaking immediately, either during what remains of 2010 or during 2011. Some are issues that have the potential to affect the public health and safety and consequently require immediate attention. Most, however, are planning issues that require immediate attention to "set the stage" for future actions. We strongly believe that most cemetery projects fail through inadequate or inappropriate planning – thus, we recommend in the strongest possible terms that the city – and the caregivers that are focusing attention on the cemetery complex and spurring much of the city's actions – engage in the necessary planning to help ensure success.

Second priorities are those which should be budgeted for over the following 2 years (2012-2013). They represent urgent issues that, if ignored, will result in both significant and noticeable deterioration of Mount Calvary, Mount Olive, Fisher's, and the potter's field as significant historic resources.

The most costly of these actions will involve the conservation treatments. These costs are the result of critical maintenance actions being deferred. As a result, many of the stones are today at a crossroad. If appropriate conservation treatments are not undertaken, it is likely that many of the stones in the cemetery complex will be forever lost.

Third priorities are those that may be postponed for several years and thus are scheduled for 2014-2015. They are issues that can wait for appropriations to build up to allow action. However, since Portsmouth's perpetual care fund for the cemeteries is reported to contain over $100,000, there is no legitimate reason for the city to postpone these actions for long. Some actions are also less significant undertakings that require other stages to be in place in order to make them feasible or likely to be successful. Although they are given this lower priority they should not be dismissed as trivial or unimportant.

Budget estimates are offered only for the single direct conservation issue of a stone-by-stone assessment of the 11 acre cemetery. This work will require three conservators 2 weeks to accomplish. The total cost (in 2010$) will be $28,600. No budgets are offered for other tasks since this is beyond the scope of this assessment.

The Role of the City

The city is taking steps to acquire all of the different parcels that comprise the African American cemetery complex. While the city has been slow to move, it is nevertheless a good and appropriate first step.

We have on several occasions pointed out that the City of Portsmouth was slow to recognize its responsibility to its African American citizens. Portsmouth's blacks did not chose to create their own cemeteries – they were excluded from the city's segregated burial grounds and thus had no choice but to create their own.

Denied the opportunity to be buried in cemeteries with perpetual care programs, it is now appropriate that those funds be extended to all burial grounds in the city – including Mount Calvary, Mount Olive, Fisher's, and potter's field.

It is incumbent on the city council to take the steps necessary to ensure that this is made possible. Then, it is up to the city to fulfill its role to maintain and preserve the African American burial grounds.

This role will involve extensive efforts to bring the cemetery complex up to a reasonable standard – cleaning ditches to promote drainage, leveling the topography, resetting coping and stones, and replacing broken vault covers. These activities are necessary because of the delayed assumption of appropriate care.

While we are aware that with current budgetary limitations actions will take time, it also seems appropriate that the needs of the African American cemeteries – ignored for decades by the City of Portsmouth – be placed at the top of the city's list of responsibilities. Had the city not embraced segregation and ignored these cemeteries, they would not today need the level of intervention they do. Immediate action is required by the city.

Just as parks or water service or police protection have yearly costs, so too do historic resources. Preservation costs must be continuous. The city cannot, every few years, suddenly remember the cemetery and devote attention. The cemetery must receive constant and on-going care and preservation efforts. The central problem is that Portsmouth has, for years, deferred these costs primarily by claiming no responsibility for African American burial grounds, creating cumulative problems that now must be addressed or else the resource will be so degraded that its continued significance to the community will be doubtful.

The Role of Volunteers

Volunteers seem to have played a significant role in the maintenance of the African American cemeteries since at least the 1960s. Newspaper accounts report the activities of the Summer Youth Corps, Mason's Lebanon Lodge No. 34, and Minority Police Officers Association. In each case the volunteer group eventually collapsed or the activities came to an end. And in each case the work that was done was quickly undone by nature and the continued gradual decay of a property that requires constant attention.

Today Christina Carlton has developed a program that involves considerable assistance from her Navy colleagues.

Volunteer efforts, however, can go only so far. There are many activities that volunteers simply do not have the training or the resources to accomplish. More to the point, the City of Portsmouth cannot make the care of city property a volunteer obligation. It is the city's responsibility to care for city property. Citizens pay taxes to ensure that this is the case.

We are concerned that the actions of volunteers receive the support of the city. In other words, if volunteers clear a ditch of volunteers, the city must be prepared to maintain that ditch. If volunteers open an area that was previously wooded, the city must be prepared to expand their mowing contract into that area to ensure it remains open.

The Role of a Friend's Group

We encourage the development of a friend's group composed of descendents, those interested in cemetery preservation, people interested in African American history, and others. Such a group should seek formal organization, developing by-laws and becoming a registered non-profit organization.

The role of such a group should be two-fold. Most importantly, a friends group should be a constituency demanding the preservation of the Mount Calvary, Mount Olive, Fisher's, and potter's field cemetery complex. This group should be putting pressure on the City of Portsmouth to appropriately care for these properties, overseeing that care, and reporting when that care falls short.

We have encouraged such a friend's group to make periodic patrols of the cemetery to ensure that there is no vandalism. The group should provide periodic reports to City Council documenting what has – or has not – been accomplished in the care of these properties. But most importantly, the group should be vocal in demanding that these resources receive the funds necessary to ensure their long-term preservation.

A secondary role of such a group should be to raise funds for specific projects outside the legitimate maintenance role of the city. Such projects may include the development of walking tours, more detailed historic research, erection of interpretative signage, and other such activities.

In terms of funding, nonprofit groups must accomplish two tasks. First, develop a "Mission Statement" (also known as a "Vision Statement") that details the specific goals & objectives of a recognized nonprofit (501(c)(3) or variation) and second, create a "Case for Support." This "Case Statement" provides urgent, compelling, and interesting reasons why an individual, corporate, or foundation donor would take ownership with the group in addressing a specific project or broader sustainable effort, such as cemetery conservation and preservation.

Moreover, the nonprofit group would need to recruit and develop a Board capable of "giving" and "getting" money. The oft-repeated expression, "Won't you join me in giving $x to this project" is the most powerful opening sentence in fundraising. A Board that is simply "advisory" traditionally has a difficult time achieving stated goals and objectives. One can buy "advice;" getting donors is an entirely different matter. Stated differently, people give money to people, not to ideas.

Table 5.
Prioritization of Recommendations

Priority	Recommendation
First – 2010-2011	1.1 The City of Portsmouth should amend the City Code to reflect their ownership of Mount Calvary, Mount Olive, Fisher's Cemetery, and the City Potter's Field, bringing these properties under the protective umbrella of the city code and ensuring that these African American cemeteries achieve the same right to perpetual care funds as other city cemeteries. 1.2 The City of Portsmouth should immediately seek a determination of eligibility for the Mount Calvary, Mount Olive, and Fisher's cemeteries from the Virginia Department of Historic Resources. 1.3 All decisions regarding modifications, alterations, additions, or other actions affecting Mount Calvary, Mount Olive, Fisher's Cemetery, and the City Potter's Field should be carefully evaluated against the Secretary of the Interior's Standards for Preservation (http://www.nps.gov/history/hps/tps/standguide/preserve/preserve_standards.htm). 1.4 Special care should be taken to protect all remaining historic fabric and the context. 1.5 The City of Portsmouth should expeditiously pursue the acquisition of Mount Calvary, Mount Olive, Fisher's Cemetery, and all portions of the City Potter's Field (including those portions on the Bazemore and PRHA tracts). 1.6 The City of Portsmouth should rezone parcels south of the cemetery to minimize the impact of light industrial zoning. A far more appropriate zoning designation is urban residential or general residential. 1.7 In the near term the City of Portsmouth should ensure that spoil and construction debris on the parcels south of the cemetery complex are removed and the viewscape restored. 1.8 As owner of the cemetery complex the city should fulfill its own 2006 recommendation and immediately conduct a detailed assessment of drainage issues at the cemetery complex. The existing drainage issues promote mosquito development and pose significant hazards to the visiting public. The drainage problems at the cemetery are also disturbing to descendants who see the graves of loved ones consistently flooded. 1.9 The city should immediately begin routine tri-annual cleaning, reshaping, and grade improvement of the existing ditches in the cemetery complex. 1.10 We recommend that the northern access road, running to the western end of the cemetery be closed to public travel. This road is not historic and poses significant security issues to the cemetery and visitors. 1.11 Mount Calvary is reported as having had a caretaker's house. This may have left archaeological remains. Maintenance activities in the cemetery should take care to avoid damaging these remains. 1.12 Parks, Recreation and Leisure Services should place the Mount Calvary fence on a yearly maintenance schedule, inspecting it for damage and touching up paint as necessary. 1.13 Parks, Recreation and Leisure Services should immediately repair the Mount Calvary name on the entrance gate where it has been vandalized. 1.14 We recommend that a multifaceted approach against vandalism be taken. Specific steps include: conduct a stone-by-stone assessment to document all damaged stones; educate staff to recognize and report vandalism; create a friends group to assist in patrolling the cemetery; contact residents adjacent to the cemetery and ask them to report suspicious activities in the cemetery; develop a form specifically for cemetery-related vandalism; immediately report all vandalism to the police and insist on investigation; establish a procedure to repair all vandalism quickly; ensure that the cemetery has daily police patrols.

Table 5, cont.
Prioritization of Recommendations

Priority	Recommendation
First – 2010-2011	1.15 The city must develop appropriate specifications for the maintenance of the cemetery. Examples of best maintenance practices are available on the Chicora website. 1.16 The cemetery evidences trees that require pruning for thinning or cleaning. These issues should be dealt with immediately. If the city does not have adequate staff to permit the level of care necessary, then a contract should be awarded to an ISA Certified Arborist for the work. 1.17 English ivy, poison ivy, and periwinkle in the cemetery should be eradicated. English and poison ivy should be cut from trees and their stems painted with an herbicide. Periwinkle should be manually removed wherever possible. 1.18 The use of large deck mowers in the cemetery is causing damage to monuments and the practice must be stopped. Only 21-inch walk-behind mowers should be used on the cemetery grounds. All mowers should be fitted with closed cell foam bumpers to reduce accidental damage to the stones. These bumpers should be inspected on a weekly basis and replaced as needed. 1.19 The nylon trimmer line being used in the cemetery must not have over 0.065-inch line. There is damage to monuments suggesting that a heavier line is being use or has been used in the past. 1.20 Parks, Recreation and Leisure Services should develop better road signage to identify the location of the cemetery. If possible this signage should conform to a consistent tourist or historical site format for the entire city. 1.21 Regulatory signage is critical at the entrance to the cemetery. It should minimally deal with proper care of the monuments, prohibiting rubbings and warning visitors of their fragile condition; it should clearly state the hours the cemetery is open; it should prohibit certain behaviors and actions, such as use of alcoholic beverages; it should established simple guidelines for plantings, as well as the placement and removal of floral and grave decorations; and it should include contact and emergency information. 1.22 The city should fund a Virginia Historical Highway Marker for the cemetery. 1.23 The city's Parks, Recreation and Leisure Services website provides no information concerning the cemetery, its history, landscape, care, or regulations. The city is missing an exceptional opportunity to engage an increasingly web savvy public in the cemetery's care and preservation. The addition of genealogical information could also be of immense interest to historians and family researchers. The city could also better promote the cemetery as a tourism resource. 1.24 All work in the cemetery should be conducted by trained conservators who subscribe to the Code of Ethics and Standards of Practice of the American Institute for Conservation of Historic and Artistic Works (AIC). This should be the minimum level of competency required by the city on all projects. 1.25 There are some treatments, such as resetting, that can be undertaken by volunteers or city staff with training and oversight. The town, however, should not attempt repairs beyond the skill level of the individuals available. 1.26 The city should strictly limit replacement of historic fabric and require that all such modifications receive approval.

Table 5, cont.
Prioritization of Recommendations

Priority	Recommendation
Second – 2012-2013	2.1 The city should ensure that the Prentis Park Drainage Improvement Plan takes into consideration the drainage issues already existing in the cemetery. No additional water should be funneled into this catchment area. 2.2 The city should immediately begin a larval mosquito control program in the cemetery complex using biological controls. 2.3 The city Public Works Department should construct all-weather gravel roads in Mount Calvary along Maple, Elm, and Willow. The resulting road should be identified as one-way; it would provide convenient movement through the cemetery. 2.4 We recommend that Maple/Vinyard westward from the ditchline separating Mount Calvary and Mount Olive also be improved, but that this section of road be closed to routine traffic. 2.5 The city should establish a protocol for assisting disabled clients and visitors. This should include appropriate training of staff and a means to provide access to remote graves. 2.6 Parks, Recreation and Leisure Services should prohibit any future erection of monuments or lot amenities in the cemetery. 2.7 The city must also exercise greater control over their landscape contractor, visiting the cemetery, before, during, and after operations to ensure that appropriate work is being done. 2.8 All mimosa and cherry laurel trees in the cemetery should be removed as soon as possible. So, too, should all diseased or dead trees. We also recommend that all trees in Mount Olive under 9-inch dbh be removed. 2.9 Trees should be chipped on-site and the mulch stored for use in the cemetery. Stumps should be cut as close as possible to the ground, but should not be ground. 2.10 All trees should be inspected yearly and after any storm with winds in excess of 55 mph. These inspections should be conducted by an ISA certified arborist 2.11 Shrubbery is not common, but much of what remains is in poor condition. Much of the shrubbery requires renewal pruning. We recommend that if the city cannot devote trained staff to care for these issues that they let a contract specific for the renewal and rehabilitation of the shrubbery. 2.12 Mowers with mulching blades should be used to allow leaves to be mulched on-site. 2.13 There is no interpretative signage or widely available brochure. Both could be used at the cemetery to encourage more effective use of the facility and help ensure its preservation. Development of a brochure is relatively cost effective and should represent an immediate action, followed by on-site signage as funding allows. The brochure should include more information on the cemetery landscape, stone carvers, funerary customs, and reasons that a visitor should be interested in the individuals buried in the cemetery, as well as providing the cemetery regulations. 2.14 Trash is a problem in the cemetery and greater attention should be devoted to that issue by the contracted maintenance firm. Trash should be expanded to include all downed limbs that would hinder complete and professional lawn maintenance. 2.15 A stone-by-stone assessment of the cemetery complex should be undertaken as soon as possible since this will identify stones requiring conservation treatment and document current conditions.

Table 5, cont.
Prioritization of Recommendations

Priority	Recommendation
Second – 2012-2013	2.16 A phased approach should be instituted to restore the topography and terrain of the cemetery. The first phase involves the mapping of the cemetery, including grave depressions, plots, monuments, roads, and vegetation. Once mapping is complete broad areas of sunken graves should be infilled. This would be the perfect opportunity to reseed or resod that particular area of the cemetery. Subsequently, individual plots should be restored, with graves filled or recapped, coping and extant monuments appropriately reset.

Table 5, cont.
Prioritization of Recommendations

Priority	Recommendation
Third – 2014-2015	3.1 Once the cemetery is consolidated, it should be enclosed with a high-security chain link fence. We estimate that approximately 3,200 linear feet will be required, tying into the extant fence at the front of Mount Calvary. 3.2 Appropriate trees for replanting include Eastern red cedar and white cedar. All replacement trees should be of at least 1-inch caliper and meet the minimum requirements of the American Nursery and Landscape Association's American Standard for Nursery Stock (ANSI Z60.1-2004). Nursery stock should be carefully inspected and specimens with wounds, crooked or double leaders, broken branches, or girdling roots should be rejected. 3.3 We recommend a gradual program of turf renovation until sustainable stands of a single turf are achieved. The city may wish to explore the use of alternative turfs such as buffalo grass or seashore paspalum. 3.4 With the establishment of a good turf, soil analysis should be conducted every five years to determine if adjustments are necessary for the turfgrass. Where fertilization is needed, only organic, slow release fertilizers should be used in order to minimize salt damage to the stones. 3.5 Limited pre-emergent and post-emergent weed control should be instituted at the cemetery, taking care to avoid stones. The herbicides will affect the stones and this work will need to be very carefully done to ensure that the stones are not damaged. However, a better stand of turf will reduce the overall maintenance cost of mowing.

SOURCES CITED

Anonymous

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1989 *The Boston Experience: A Manual for Historic Burying Grounds Preservation*. Second Edition. City of Boston, Boston Parks & Recreation Department, Boston.

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2007 *Cultural Resource Survey: Archaeological and Architectural Surveys Route 58, Martin Luther King Freeway Extension Project City of Portsmouth, Virginia*. McCormick Taylor, Glen Allen, Virginia.

Hammer, Greg

2007 *Soil Survey of the City of Chesapeake, Virginia*. U.S.D.A., Soil Conservation Service, Washington, D.C.

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2007 *History of Portsmouth, Virginia*. Portsmouth Historical Press, Portsmouth.

Klupar, G.J.

1962 *Modern Cemetery Management.* Catholic Cemeteries of the Archdiocese of Chicago, Chicago.

Llewellyn, John F.

1998 *A Cemetery Should Be Forever: The Challenge to Managers and Directors*. Tropico Press, Glendale, California.

Trinkley, Michael and Debi Hacker

2007 *A Small Sample of Burials at Randolph Cemetery: What Their Stories Tell Us About the Cemetery and African American Life in Columbia*. Research Contribution 461. Chicora Foundation, Inc., Columbia.

APPENDIX 1.

MICHAEL TRINKLEY

Chicora Foundation, Inc.
P.O. Box 8664 • 861 Arbutus Drive
Columbia, South Carolina 29202
803/787-6910

Education/Training

1974	B.A., Anthropology, University of South Carolina, Columbia
1976	M.A., Anthropology, University of North Carolina, Chapel Hill
1980	Ph.D., Anthropology, University of North Carolina, Chapel Hill
1997	Non-Destructive Investigative Techniques for Cultural Resource Management, NPS Workshop, Fort Scott National Historic Site, Fort Scott, Kansas (geophysical techniques)
1999	Jahn Installer Workshop, Cathedral Stone Products, Inc., Jessup, Maryland (3 days) (certified installer 9906811-SC)
2001	Preservation & Care of Brownstone Buildings, Technology & Conservation Conference, Boston, Massachusetts
2003	Lime Mortar Workshop, U.S. Heritage, Chicago, Illinois
2004	Preservation Masonry Workshop, School for the Building Arts, Charleston, SC (2 days)
2005	International Lime Conference, Orlando, Florida
2005	Edison Coatings Workshop, Richmond, Virginia (1 day)
2005	Historic Masonry Preservation Workshop, John Lambert, Campbell Center for Historic Preservation Studies, Mt. Carroll, Illinois (1 week)
2005	Preservation Masonry Workshop, College for the Building Arts, Charleston, SC (2 days)
2005	Masonry Analysis & Testing Workshop, Berkowitz and Jablonski, Campbell Center for Historic Preservation Studies, Mt. Carroll, Illinois (1 week)
2005	Jahn 4-Hour Workshop, Cathedral Stone Products, Columbia, SC

2006	Stone Carving and Restoration Workshop, Traditional Building Skills Institute, Snow College, Ephraim, Utah (3 days)
2007	Integrally Colored Concrete Workshop, Ron Blank & Associates, AIA Continuing Education, Columbia, SC
2008	IACET Aerial Work Platforms Training; Supported Scaffold Safety Training; Cranes, Chains, Slings and Hoist Safety Training, Columbia, SC
2008	Georgia Urban Agriculture Council & UGA Cooperative Extension Outdoor Water Use Registration Program Certificate #P86X9G4467

Memberships

American Institute for Conservation of Historic and Artistic Works
US/ICOMOS – Brick, Masonry & Ceramics Committee
Association of Preservation Technology
Preservation Trades Network
National Trust for Historic Preservation
Association of Gravestone Studies

Abstract of Cemetery Conservation/Preservation Experience (not inclusive of legal/archaeological experience):

1992	Reviewer of National Trust for Historic Preservation publication on historic cemeteries publication by Lynette Strangstad.
1998-99	Principal Investigator, Survey and Documentation of African-American cemeteries in Petersburg, Virginia. Including mapping, grave location, and development of historic context. (with Preservation Consultants, Charleston, SC).
1998-99	Conservation activities, Maple Grove Cemetery, Maple Grove United Methodist Church, Waynesville, North Carolina.
1999	Instructor, Cemetery Preservation: Making Good Choices Workshop, Virginia Association of Museums, Petersburg, Virginia.
1999	Instructor, Cemetery Preservation: Making Good Choices Workshop, Georgia Local History Conference, Augusta, Georgia.
2000	Consultation regarding maintenance and clearing of Ricefield's Woodville Cemetery, Georgetown County, South Carolina.
2000	Invited Speaker, Cemetery Conservation Techniques, Historic Cemetery Preservation Workshop, Maryland Historical Trust, Annapolis, Maryland.
2000	Preservation assessment, Summerville Cemetery, Augusta, Georgia.
2001	Assessment and preservation plan for Glenwood Cemetery, Thomaston, Georgia.
2001	Reconnaissance survey of cemeteries in Richland County, South Carolina.

2001	Preservation guidelines for St. Paul's Cemetery, Augusta, Georgia.
2001	Instructor, Cemetery Preservation: Making Good Choices Workshop, Restoration International Trade Event, New Orleans, La.
2001	Instructor, Cemetery Preservation: Making Good Choices Workshop, National Preservation Institute, Washington, D.C.
2002-2003	Conservation program, Old Waxhaws Presbyterian Cemetery, Lancaster County, South Carolina.
2003	Treatment of markers at the Vardeman Cemetery, Lincoln County, Kentucky.
2003	Consultation concerning cemetery walls and pathways, Maple Grove Cemetery, Waynesville, North Carolina.
2003	Invited Speaker, Preservation of African American Cemeteries Conference, 2003, Helena, Arkansas.
2003	Instructor, Cemetery Preservation: Making Good Choices Workshop, Washington County, Georgia Historical Society, Sandersville, Georgia.
2003	Preservation assessment, Old City Cemetery, Sandersville, Georgia
2003	Instructor, Cemetery Preservation: Making Good Choices Workshop, National Preservation Institute, Washington, D.C.
2003	Treatment of markers at Oakview and Riverside cemeteries; examination of burial vaults in white and African American sections, City of Albany, Georgia (FEMA funded).
2003	Preservation assessment, Historic Cemeteries at Five Cemeteries, Bannack State Park, Bannack, Montana
2003	Instructor, Cemetery Preservation: Making Good Choices Workshop, Bannack State Park, Bannack, Montana
2003	Consultation concerning cemetery brick wall, Midway Church, Midway, Georgia.
2004	Treatment of markers at Richardson Cemetery, Clarendon County, South Carolina.
2004	Instructor, Cemetery Preservation: Making Good Choices Workshop, National Preservation Institute, Washington, D.C.
2004	Treatment of markers at Maple Grove Cemetery, Waynesville, North Carolina.
2004	Consultation regarding State Historical Marker, Roseville Cemetery, Florence County, South Carolina.
2004	Consultation regarding the Mary Musgrove Monument, Musgrove Mill State Park, Laurens County, South Carolina.

2004	Invited Speaker, Cemetery Preservation Workshop, SC Genealogical Society Annual Meeting, Walterboro, South Carolina.
2004	Treatment of markers at Wrightsboro Cemetery, Thomson, Georgia.
2005	Treatment of markers at Pon Pon Cemetery, Colleton County, South Carolina.
2005	Treatment of markers at Walnut Grove Plantation, Spartanburg County, South Carolina.
2005	Consultant on cemetery fence theft, Save Austin's Cemeteries, Austin, Texas.
2005	Treatment of markers at Richardson Cemetery (Second Phase), Clarendon County, South Carolina.
2005	Instructor, Cemetery Preservation: Making Good Choices Workshop, National Preservation Institute, Washington, D.C.
2005	Treatment of marker in Oakview Cemetery, Albany, Georgia.
2005	Treatment of markers at Trinity Cathedral, Columbia, SC.
2005	Preliminary preservation recommendations, Randolph Cemetery, Columbia, SC.
2005	Treatment of markers in Presbyterian Cemetery, Union, SC.
2005	Instructor, Cemetery Preservation: Making Good Choices Workshop, Save Oklahoma's Cemeteries, Muskogee, Oklahoma.
2005	Instructor, Cemetery Preservation: Making Good Choices Workshop, National Preservation Institute, Las Vegas, New Mexico.
2005	Treatment of marker, Reynolds Homestead, Critz, Virginia.
2005	Assessment and preservation plan for Lewis Cemetery, King and Queen County, Virginia. King and Queen County Historical Society.
2006	Treatment of markers in Presbyterian Cemetery, Union, SC (second phase).
2006	Assessment and preservation plan for Pine Lawn Memorial Gardens, Aiken, South Carolina. SC Department of Archives and History, Columbia.
2006	Assessment of Unadilla Cemetery, Unadilla, Georgia.
2006	Invited Speaker, Planning a Cemetery Preservation Project, People and Places: South Carolina's Seventh Annual Statewide Historic Preservation Conference, SC Department of Archives and History, Columbia, South Carolina.
2006	Assessment and Preservation Plan, Memory Hill Cemetery, Milledgeville, Georgia.
2006	Assessment and Preservation Plan, Springwood Cemetery, City of Greenville & Friends of Springwood Cemetery, Greenville, South Carolina.

2006	Invited Speaker, Cemetery Rehab, South Carolina Landmark Conference, SC Department of Archives and History, Aiken, South Carolina.
2006	Assessment, Town of Dedham, MA cemetery, Vollmer Associates, Boston.
2006	Assessment and Preservation Plan, Naval Medical Cemetery Portsmouth Cemetery, Portsmouth, Virginia.
2006	Instructor, Cemetery Preservation: Making Good Choices Workshop, National Preservation Institute, Washington, D.C.
2006	Invited Speaker, Preservation Needs at Greenville's Springwood Cemetery, Greenville Chapter of SC Genealogical Society, Greenville, South Carolina.
2006	Preparation of landscape plan, Randolph Cemetery, Columbia, South Carolina.
2006	Treatment of markers in the Cason Plot, Long Creek Baptist Church, Warrenton, Georgia.
2006	Treatment of markers in the Watson Plot, Thomson City Cemetery, Thomson, Georgia.
2006	Treatment of markers at Trinity Cathedral, Columbia, South Carolina (second phase).
2006	Assessment and Preservation Plan, Old Athens Cemetery, University of Georgia, Athens, Georgia.
2006	Preparation of Treatment Plan, Terrell Tomb, Sparta, Georgia.
2006	Emergency conservation treatment, Settler's Cemetery, City of Charlotte, North Carolina.
2006-2007	Preservation Assessment and Recordation, St. Elizabeth's Cemetery, Washington, DC (for General Services Administration).
2006-2007	Preservation Assessment, three Raleigh Cemeteries, Raleigh, North Carolina.
2007	Historic research, Randolph Cemetery, Columbia, South Carolina.
2007	Treatment of Monuments at Laurelwood Cemetery, Rock Hill, South Carolina.
2007	Assessment of markers, Machpelah Cemetery, Lincoln County, North Carolina.
2007	Assessment of Moss Family Cemetery, Stanly County, North Carolina.
2007	Treatment of Monuments at the Old Athens Cemetery, University of Georgia, Athens, Georgia.
2007	Treatment of markers at Trinity Cathedral, Columbia, South Carolina (third phase).
2007	Invited Speaker, Annual Conference of the South Carolina African American Heritage Commission, Mars Bluff, South Carolina.
2007	Instructor, Cemetery Preservation: Making Good Choices Workshop, National Preservation Institute, Greensboro, North Carolina.

2007	Treatment of markers at Machpelah Cemetery, Lincoln County, North Carolina.
2007	Assessment of markers, St. Johns Cemetery, Richmond, Virginia.
2007	Preservation Assessment, Village Cemetery, Newberry, South Carolina.
2007	Instructor, Cemetery Preservation: Making Good Choices Workshop, Lincolnton Historical Society, Lincolnton, North Carolina.
2007	Treatment of markers, Settler's Cemetery, Charlotte, North Carolina.
2007	Assessment of markers, Unitarian Church Cemetery, Charleston, South Carolina.
2007	Preparation of Conservation Scope of Work (cemetery stones), Chalmette National Cemetery, Louisiana (for Lord, Aeck & Sargent, Ann Arbor, Michigan).
2007	Preservation Assessment and Assessment of markers, Mann Family Cemetery, North Attleboro, Massachusetts.
2007	Treatment of the Pringle Vault, City Cemetery, Sandersville, Georgia.
2007	Assessment of the Plunk Family Cemetery, Lincolnton, North Carolina.
2007	Assessment of City Cemetery, South Bend, Indiana.
2007	Assessment of Magnolia Cemetery, Mobile, Alabama.
2007	Treatment of the Middleton family vault, Middleton Plantation, Dorchester County, South Carolina.
2007	Treatment of ledgers in family cemetery, Augusta, Georgia.
2007	Consultant, National Trust for Historic Preservation, Southern Field Office, Tornado damage at Oak View Cemetery, Americus, Georgia.
2007-2008	Treatment of markers at Richardson Cemetery, Clarendon County, South Carolina (third phase).
2008	Assessment of the Coleman-Leigh-Warren Family Cemetery, Augusta, Georgia.
2008	Assessment of three city cemeteries, Thomasville, Georgia.
2008	Assessment of Cottage Cemetery, Augusta, Georgia.
2008	Assessment, South View Cemetery, Atlanta, Georgia.
2008	Treatment of Mitchem Family Cemetery stones, Clarendon County, South Carolina.
2008	Preparation of Conservation Scope of Work (brick, iron, stucco), Chalmette National Cemetery, Louisiana (for Lord, Aeck & Sargent, Ann Arbor, Michigan).

2008	Treatment of stones at Unitarian Church Cemetery, Charleston, South Carolina (first phase).
2008	Treatment of vandalized stones at Trinity Cathedral Church Cemetery, Columbia, South Carolina.
2008	Consultant, Dantzler Plantation, regarding brickwork, stucco, and rising damp, Holly Hill, South Carolina.
2008	Assessment, Christ Church Cemetery, Greenville, South Carolina.
2008	Treatment of stones at Magnolia Cemetery, Mobile, Alabama (first phase).
2008	Instructor, Cemetery Preservation: Making Good Choices Workshop, National Preservation Institute, Jacksonville, Florida.
2008	Treatment of Monuments at the Old Athens Cemetery, University of Georgia, Athens, Georgia (second phase).
2008	Treatment of Newman Swamp Methodist Church stones, Florence County, South Carolina.
2008	Treatment of Rehoboth Cemetery stone, Clarendon County, South Carolina.
2008	Penetrometer survey and mapping of Old Brick Church Cemetery, Fairfield County, South Carolina.
2008	Consultant, National Trust for Historic Preservation, Southern Field Office, Tornado damage at Oak View Cemetery, Atlanta, Georgia.
2008-2009	Assessment and preservation plan for three City of Suwanee cemeteries, Suwanee, Georgia (includes GPR and mapping in association with GEL Geophysics, Charleston, South Carolina).
2008-2009	Assessment and preservation plan for city cemetery, Jonesborough, Tennessee.
2008-2009	Conservation assessment of Orleans City Cemetery, Orleans, Massachusetts.
2009	Treatment of monuments at Settler's Cemetery, Charlotte, North Carolina.
2009	Treatment of monuments at Magnolia Cemetery, Mobile, Alabama (second phase).
2009	Treatment of monuments at the Old Athens Cemetery, University of Georgia, Athens, Georgia (third phase).
2009	Assessment and preservation plan for St. Elizabeths Hospital, East Camus Cemetery, Washington, DC.
2010	Treatment of the National Cemetery Monument, Biloxi National Cemetery, Biloxi, Mississippi.
2010	Treatment of the Dade Pyramids and Monument, St. Augustine National Cemetery, St. Augustine, Florida.

2010 Treatment of the Potter Memorial, Beaufort National Cemetery, Beaufort, South Carolina.

2010 Assessment and preservation plan for the Old Shiloh Presbyterian Church Cemetery, Grover, North Carolina.

2010 Presenter, Association Gravestone Studies Conference, Granville, Ohio.

2010 Treatment and replacement of fence ironwork, Old Athens Cemetery, Athens, Georgia.

2010 Cemetery assessment, stone-by-stone assessment, and preservation plan, Elm Street Cemetery, Braintree, Massachusetts.

2010 Treatment of stones, Randolph Cemetery, Columbia, South Carolina.

2010 Cemetery assessment, conservation consultation, Spring Grove Cemetery and Arboretum, Cincinnati, Ohio.

2010 Cemetery assessment, Mount Calvary, Mount Olive, Fisher's, and Potter's Field, Portsmouth, Virginia.

2010 Treatment of stones, Violet Bank Cemetery, Colonial Heights, Virginia.

2010 Treatment of stones, Old Athens Cemetery, Athens, Georgia.

2010 Stone-by-stone assessment, Richland Cemetery, City of Greenville, South Carolina.

2010 Cemetery assessment, Eastern Cemetery, Portland, Maine.

2010 Invited Speaker, 9th Annual Alabama Cemetery Preservation Alliance, Montgomery, Alabama.

National Register Nominations of Cemeteries

1999 Preliminary Multi-Property Nomination, African American Cemeteries of Petersburg, Virginia. Submitted to Virginia Department of Historic Resources, Richmond, Virginia (with Sarah Fick, Preservation Consultants).

2000 National Register Nomination, King Cemetery, Charleston County, South Carolina. Submitted to South Carolina State Historic Preservation Office, SC Department of Archives and History, Columbia.

2002 National Register Nomination, Scanlonville or Remley Point Cemetery, Charleston County, South Carolina. Submitted to South Carolina State Historic Preservation Office, SC Department of Archives and History, Columbia.

2005 Preliminary Information Form – Hopkins Family Cemetery, Richland County, South Carolina. Submitted to South Carolina State Historic Preservation Office, SC Department of Archives and History, Columbia.

2007 Preliminary Information Form – Harts Bluff African American Cemetery, Wadmalaw Island, Charleston County, South Carolina. Submitted to South Carolina State Historic Preservation Office, SC Department of Archives and History, Columbia.

2009 Preliminary Information Form – Lower Cemetery, City of Columbia, Richland County, South Carolina. Submitted to South Carolina State Historic Preservation Office, SC Department of Archives and History, Columbia.

Cemetery Preservation Plans

Historical Research

Identification of Grave Locations and Mapping

Condition Assessments

Treatment of Stone and Ironwork

Chicora Foundation, Inc.
PO Box 8664 ▪ 861 Arbutus Drive
Columbia, SC 29202-8664
Tel: 803-787-6910
Fax: 803-787-6910
www.chicora.org